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HOW TO STUDY STRANGERS

BY

Temperament, Face and Head

A SEQUEL TO

"HEADS AND FACES"

— BY —

NELSON SIZER

President of the American Institute of Phrenology,
and Professor of Theory and Practice.

AUTHOR OF "HOW TO TEACH; OR, PHRENOLOGY IN THE SCHOOLROOM
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"DEBATE AMONG THE FACULTIES;" "AMBI-
TION OR APPROBATIVENESS;" "RESEM-

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JUDGE IT;" "THE PERCEP-

TIVE FACULTIES;" "CHAR-

ACTER READING FROM

PHOTOGRAPHS;"

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Also for Forty-six years Chief Phrenological Examiner in the
office of Fowler & Wells, and Fowler & Wells Co.

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PREFACE.

I always read an author's preface, and also desire to see the face of a person who talks to me.

The subject to which this work, "How to Study Strangers," is devoted needs no apology, though the manner of its treatment may warrant a word of explanation. I have spent fifty-six years in lecturing on human character, and in making personal descriptions of the same. These were addressed to public audiences or to individuals and their friends, all being strangers to me, and they required language at once decisive, and seemingly dogmatic. Patrons insist upon absolute, unwavering statements, and will approve and accept nothing else. The reader is requested, therefore, to remember that every page of this book has been dictated to a stenographer, in the same manner as descriptions of the personal character of strangers are uttered, and if the language seems too positive, egotistical or abrupt, it may result from the long and necessary habit referred to, or, perhaps, from the fact that I thoroughly believe every line in the book.

Each chapter, thus talked to a reporter at the rate of one hundred and twenty-five words a minute, is more like a flood-tide than like a placid lake. It is the outcome of an hour of rested vigor, and not of the weary, all-day method of working with the laggard pen, which might, perhaps, prune and polish the style, but the result would lack the right onward, hearty virility of talking as friend to friend.

Human character is the most important subject known to man. Unless we are hermits we cannot avoid coming in contact with strangers, whom in business we are obliged to trust or distrust; or in friendship and love, confide in or avoid. Therefore we must often be sufferers, unless by instinct or science we can know at sight the character of the worthy and the unworthy.

In 1882, having completed man's allotted age, I wrote and published my third book, "Forty Years in Phrenology," and though being hearty and

joyous, I closed it with a benediction to my friends and readers as my last contribution, and when a copy come in from the bindery I wrote on the fly-leaf:

"The first copy of my last book I devote to my beloved wife, this 11th day of November, 1882."

She urged me to promise not to undertake the extra work of writing another book at my time of life, but confine myself to the smooth-sailing of professional office work; but three years afterward "Heads and Faces" was launched, and a hundred and thirty-five thousand purchasers have sought for and sanctioned it; and now, ten years later, I am giving the finishing touch, by writing this preface for "How to Study Strangers," designed to be my last book, and a sequel and companion for "Heads and Faces," yet so different as to fill a place of its own.

To the survivors and friends of more than 250,000 persons who have been under my hands professionally, and to more than six hundred graduates of the American Institute of Phrenology, I hopefully commit this, my latest work, as a token of affectionate interest and regard.

NELSON SIZER.

NEW YORK, SEPTEMBER 2, 1895.



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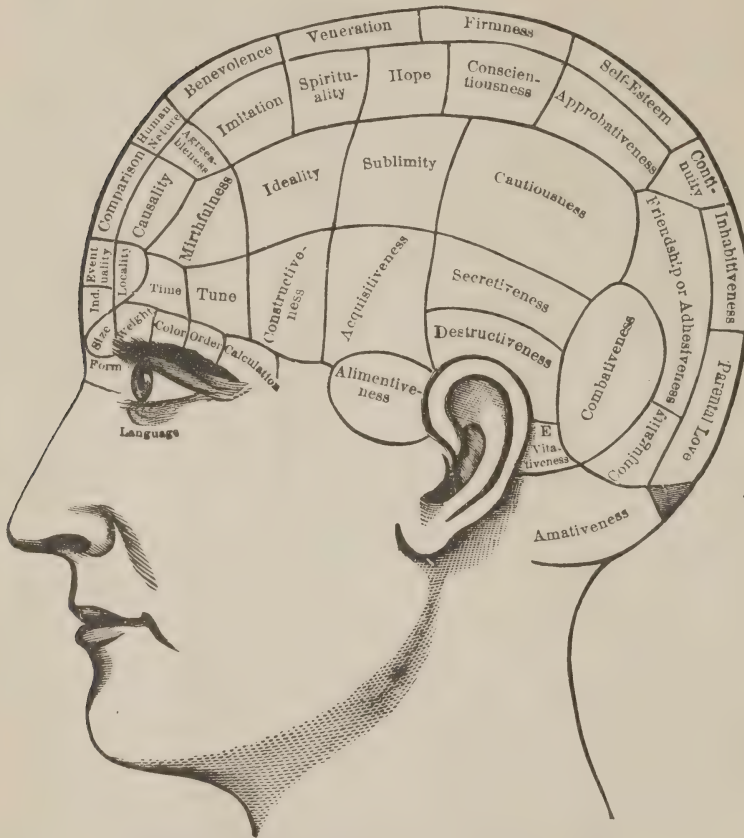
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THE PHRENOLOGICAL HEAD.



NUMBERING AND DEFINITION OF THE ORGANS.

- | | |
|--|---|
| 1. Amative-ness, Love between the sexes. | 20. Constructiveness, Mechanical ingenuity. |
| A. Conjugality, Matrimony—love of one. | 21. Ideality, Refinement—taste—elegance. |
| 2. Parental Love, Regard for offspring, pets, etc. | B. Sublimity, Love of grandeur—infinity. |
| 3. Friendship, Adhesiveness—sociability. | 22. Imitation, Copying—patterning. |
| 4. Inhabitiveness, Love of Home—patriotism. | 23. Mirthfulness—wit—jollity—fun. |
| 5. Continuity, One thing at a time. | 24. Individuality, Observation—desire to see. |
| E. Vitativeness, Love of Life. | 25. Form, Recollection of shape—modeling. |
| 6. Combative-ness, Aggression—defense. | 26. Size, Measuring by the eye. |
| 7. Destructiveness, Executiveness—severity. | 27. Weight, Balancing—climbing—center of gravity. |
| 8. Alimenter-ness, Appetite—hunger. | 28. Color—Judgment of colors and shades. |
| 9. Acquisitiveness, Accumulation. | 29. Order, Method—system—arrangement. |
| 10. Secretiveness, Policy—management. | 30. Calculation, Mental arithmetic—counting. |
| 11. Cautiousness, Prudence—provision. | 31. Locality, Recollection of places. |
| 12. Approbation, Ambition—display. | 32. Eventuality, Memory of facts. |
| 13. Self-esteem, Self-respect—dignity. | 33. Time, Cognizance of duration—keeping step. |
| 14. Firmness, Decision—perseverance. | 34. Tune, Sense of harmony and melody. |
| 15. Conscientiousness, Justice—equity. | 35. Language, Expression—free use of words. |
| 16. Hope, Expectation—enterprise. | 36. Causality, Applying causes to effect. |
| 17. Spirituality, Intuition—faith—credulity. | 37. Comparison, Inductive reasoning—illustration. |
| 18. Veneration, Devotion—respect. | C. Human Nature, Perception of character. |
| 19. Benevolence, Kindness—sympathy. | D. Agreeableness, Pleasantness—suavity. |



HOW TO STUDY STRANGERS

BY

TEMPERAMENT, FACE AND HEAD.

By NELSON SIZER.

CHAPTER I.

We are sometimes questioned in this manner: "How do you study a face? How do you study a head? How do you study the whole constitutional makeup so as to feel a good degree of confidence in the result? I am interested in faces, and I think I can determine intelligence by looking at a face as a whole, and I can tell Amiability from Severity of disposition. But how do you study the complexities of mental development? The great outlines of character, I suppose, are not difficult to be understood, but the biography, the warp and woof of a man's character and a woman's or a child's spirit and disposition, how do you get at all that? For instance, I see an eminent and excellent person, who has lived long enough to have a bald head, it may be as round as a billiard ball. Men talk about bumps, but there are no

bumps in such a head, therefore, how can you determine characteristics?"

In replying to such questions, or any others which may arise in the minds of thinkers, readers and observers, we beg to say, in the first place, that we never have studied heads by means of bumps. Nothing pleases us so much as to see a handsome, well-formed head, or a face without any peculiarities of facial expression, or a head without any bumps, hillocks or inequalities of cranial development; the most evenly developed head and the most uniform type of face is artistically and practically the best.

We study heads from the centre of the brain at the medulla oblongata, or the capital of the spinal cord. The brain is developed by fibrous extension, and the length of these fibres which terminate at the surface of the

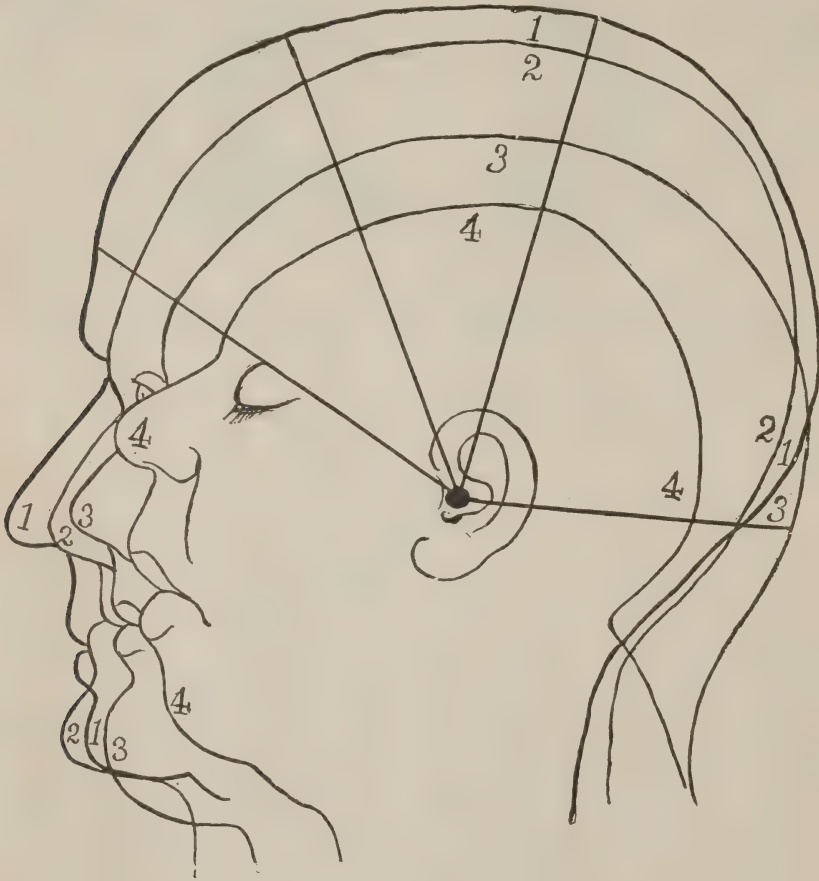
brain determine the development of the cerebral mass.

In these outlines we present to our readers, in one sense, a new departure in phrenological illustrations. There are several lines radiating from the opening of the air in these outline heads, and represent the mode of brain growth and development as we study it in real life by distances from

the centre of the bust in each case was the same; so the result of the different outlines represents the relative size and form of each of the casts.

In Figure 1, we have the great Daniel Webster, who, in his lifetime, was called "godlike," for his majestic presence and his superb breadth of mental life.

Figure 2 is that of the cast of John



FIGS. 1 TO 4.—1, WEBSTER. 2, CALHOUN. 3, MARTIN. 4, HILLINGS.

brain centre, not by bumps. The four busts which are represented in each of these groups of drawings, one a set of side views, and the other the outline backview of each head, are copied from original casts, taken from the heads during life; and these pictures being taken by photographic process, the distance from the lens to

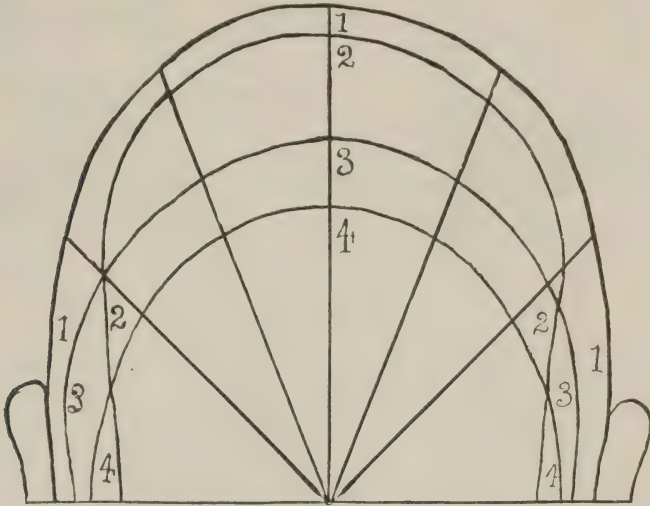
C. Calhoun, the great southern statesman. These two busts were the only casts ever taken of Webster and Calhoun. They were carefully taken by the artist, Clark Mills, of Washington, in Washington; therefore being casts and not models they represent the exact size and form of the heads of these two great men;

there is not the difference of the thickness of a postal card, at any rate, on the portions that were not covered with hair, and this was wet and laid close to the head; and Mr. Webster had but little hair in 1847.

Figure 3, Martin, the murderer, it will be observed, has a low and retreating forehead, the moral region is low, and it is broad and heavy at the base, and extends backward from

Calhoun was $6\frac{3}{8}$. The vertical elevation, from a line drawn from the opening of each ear, in Webster was $5\frac{1}{4}$ inches; that of Calhoun was $5\frac{1}{4}$. The caliper measurement, from the opening of the ear to the centre of the tophead, making rather a diagonal line, was in Webster $6\frac{3}{4}$ inches; and in Calhoun $6\frac{3}{8}$ inches.

The head of Martin (Fig. 3) is $7\frac{1}{8}$ inches from front to rear. The ver-



FIGS. 5 TO 8.—1, WEBSTER. 2, CALHOUN. 3, MARTIN. 4, HILLINGS.

the ear, considerably beyond either that of Calhoun or Webster.

Figure 4 is a drawing, taken as we have described from a cast of the head of one of the Hillings family of idiots. We have the mother and five adult children; this is one of the children.

Remember that the opening of the ear in all these portraits is the central or focal point; they are matched at that point, and the development in each direction is in exact accordance with nature.

The caliper measurement of Webster's head, from the centre of the forehead to the most prominent part of the backhead, was $9\frac{1}{4}$ inches; that of Mr. Calhoun was $8\frac{1}{4}$ inches. The diameter of Webster's head, just above the ears, was 7 inches; that of

Calhoun was $6\frac{3}{8}$. The vertical elevation, from a line drawn from the opening of each ear, in Webster was $5\frac{1}{4}$ inches; that of Calhoun was $5\frac{1}{4}$. The caliper measurement, from the opening of the ear to the centre of the tophead by calipers—that is, a straight line from the opening of the ear as a caliper would measure it—is $6\frac{3}{8}$ inches. The head No. 4 measures 6 inches from front to rear; it is $4\frac{3}{4}$ inches high, and 5 inches wide just above the ears.

We may say, therefore, distinctly that phrenologists, who understand what has been taught, from the days of Gall and Spurzheim until now, do not look for bumps as many persons seem to suppose, as if the last half inch of a man's head was made into waves, like those of the sea, the crest showing power and the trough weakness.

We sometimes find heads of the same length from the forehead to the back head, but one will be two inches wider above and about the ears than the other, but they may also be of the same height from the ear upward, the difference being in the development of the side head, and yet there is no

that the phrenologists who understand the subject do not look for hills and hillocks, for bumps and ridges; yet, sometimes one part of the head will be an inch farther from the centre than another part. It is not uncommon to find the front half of the head to resemble one parent, whose head



FIG. 9. A WIDE HEAD.

bump, no little hill or hollow, but the general breadth of the head shows it. A small apple may be as round as any other, there are no hollows in it because it is small; another apple is large, but there are no bumps on it;

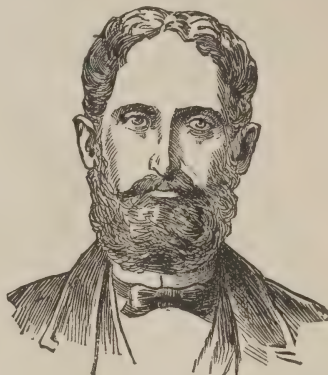


FIG. 11. A NARROW HEAD.

measured 21 inches, and the portion of the head back of this part will abruptly increase in size, representing the other parent, who had a twenty-three inch head; it does not make a bank nor a wall where it meets the smaller

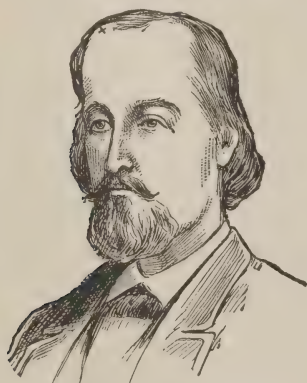


FIG. 10. A HIGH HEAD.

it is made up of general fulness and length of fiber from the centre to the circumference; and if the reader will bear this thought in mind, as we proceed to explain and illustrate this important matter, and we hope to settle it once and for all time, and it is this;

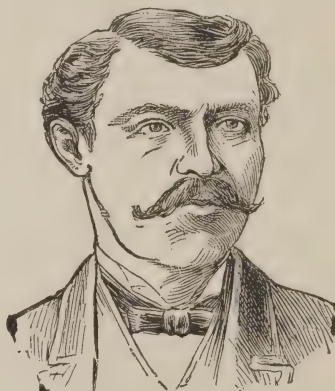


FIG. 12. A LOW HEAD.

half of the head, but it rises rapidly to a larger form, and thus represents a head that measures twenty-three inches. Nothing is more common than to find the forehead constituting about one-third of the length of the head, and the back and front head rep-

representing a 22-inch head, but the section between being piled up massively, so as to represent a 23-inch head, and nothing is more common than to find the middle section of the face, from the corner of the eye to the corner of the mouth, large as compared with the forehead and chin; and that middle section of the face corresponds to the middle section of the head; and while we are here, we may

ancestor who had the heavy eyebrows and with it a masterful constitution, imparted that peculiarity to his progeny, which is not easily effaced. Another line of people will have the marked development of long nose with a peculiar straightness; another family or line of families will have the Roman nose; another family will have the nose broad at the bridge or broad at the wings. Then there are pe-

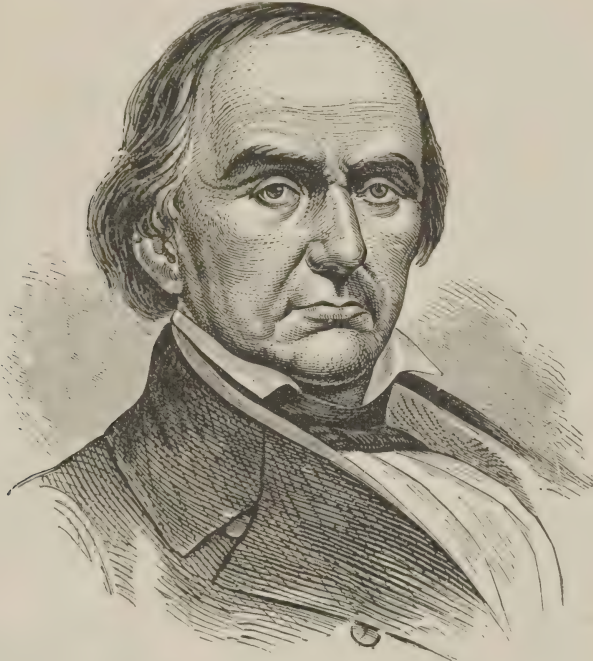


FIG. 13. DANIEL WEBSTER.

say also that the chest corresponds with that portion of the face and head; and we hope to make these points as clear to others by comparison as they are to us.

In the wonderful intermingling of peculiarities of character by marriage and birth we find developed eccentricities of features and eccentricities of head. In one line of progenitors there is sometimes a characteristic feature of the face, a massiveness over the eyes, and heavy eyebrows, which will run for half a dozen generations, and mark all the children, because the

peculiarities of mouths in some families, in others we find the mark of some progenitor who had prominent teeth, and a heavy hard-looking upper lip, and when shaved it looks like a mass of granite, quarried and sculptured into shape. Another family will have the softer upper lip, rolling out instead of being curved partly under; then there are families who will have the heavy under lip, heavier than the upper, a prognathous under jaw. In another family we see the retreating chin, almost absurdly so, and a short under jaw, and we advise such

men to wear a beard to cover it, if they can; then other families will have a broad, strong, protrusive chin. Now, none of these peculiar forms of features are beautiful; they may be majestic, they may be resolute, and they may indicate steadfastness, they may indicate duty well done, or being well done, or determination to do duty.

In studying heads, we sometimes find a forehead very protrusive in the lower part, but retreating upward and backward. Another person has a moderate development across the brows, and heavy upper forehead—what we call a beetling forehead; another is narrow at the temples, and the face is comparatively sharp; another is bulged at the temples, wide and massive; one head is heavy just above the ears, and tapers off both ways, front and rear. Another is wide at the upper back region of the head and wide or narrow in front; one is straight up and down at the back, another stands out, and has a long and graceful curve. Another is high at the crown; one is well rounded in the middle and top head, and another is comparatively flattened, and in some heads there seems to be a kind of hollow at the top, it is less than flat in that region.

In respect to faces, one has broad cheek bones and another narrow; one a long, protrusive mouth and heavy lips; another has a prim mouth with thin lips. When people talk of heads and faces they seem to appreciate and enjoy saying, "A person has regular features, a fine, expressive face." Another has a "well-rounded, handsome head." Women, when talking of their babes, will speak of one as having a very beautiful head, so symmetrical and graceful in all its lines; and another has a long head, sharp in front and rises at the crown, and they think it is queer and wonder what it indicates, especially young mothers when they see their first babe, almost without any forehead, and the crown looming up, they are

afraid, and sometimes ask us if the child will ever have a better-shaped head, and if we think the child will ever know anything; four months afterward they forget to ask such questions; the head comes into shape and is amply developed. Of course, the infantile head changes rapidly in form.

A cat's brain is about the size of an ordinary apricot or the egg of a bantam chicken; it is developed by fibres, and when the fibres stop extending the limit of brain development is reached. A dog has a larger



FIG. 14. A CAT.



FIG. 15. A MONKEY.

brain, and a monkey still larger; and the length of fibre is the mode of the increase of brain from the smallest to the largest.

When we examine a given head we measure it in circumference and in



FIG. 16. A DOG.

several other ways. We study its relation to the size of the body and the manner in which it is nourished.

The method we adopt in the cases of Figs. 1 to 8 shows the relative size of the head, and the measurements which we give indicate the real size.

CHAPTER II.

THE BRAIN, ITS STRUCTURE AND USES.

THE brain is the master or the central source of power, motion and talent; in other words, of the body is under the masterful control of the brain and its append-



FIG. 17.—THE BRAIN IN SKULL.

tion and talent; in other words, knowledge and power. Every fibre of the body is under the masterful control of the brain and its append-

messenger to carry to the brain a knowledge of joy, sorrow, secured from the outer world; and every effort of the will in the work and struggle of life receives its impulse in the brain and serves the purpose of that brain in the work and duty of life. The nerves of sensation which give pleasure and pain are so spread in minute fibres throughout the system that we can not touch with a point of a needle any part of the system without touching one of them; so that the brain, though located in the cranium, has its agencies all over the system; and the nerves of motion, actuated by the brain, produce all the force, skill and power which is manifested in life.

There is more known about brain and nerve to-day than there was half a century ago. When I commenced to lecture men who knew enough to go successfully into the avenues of skill and industry would sometimes ask, touching the forehead, if the brain was located there, for they had seen some person who had received a blow on the forehead and the brain was exposed. Another would contradict it and say that he had known a person to receive a blow on the back of the head and the brain was then exposed. Another had seen a person injured on the side of the head in the region of the ears and the brain was seen to be there. And I would say to them, "Gentlemen, you are all right, the skull is completely filled with the brain from the orbits of the eyes to the back of the neck, even as an egg-shell is filled with its contents; and the skull is simply the house the brain lives in and is made to protect it, not to imprison it."

In earlier times physiologists studied everything more than the brain, and common people have, therefore, less information on that subject than on most other topics relating to the human economy. We now seek to present in a simple form for popular reading and understand-

ing, facts relating to the brain that ought to be known by all, avoiding most of those sharp technicalities familiar to the student of medicine; and we will try to make the general outline of brain development and its characteristics plain to the popular mind.

BRAIN AS SITUATED IN THE SKULL.

Fig. 17. In this engraving is represented the head and face with one-half of the skull removed and the brain exposed as it exists in life. If a line be drawn from the angle of the eye through the opening of the ear to the back head it will indicate the base of the cavity of the skull which in life is filled with brain. In this figure also will be seen the edge of the skull and the edge of the scalp. The cerebrum or great brain and also the cerebellum or little brain at the base, behind the ear, are shown.

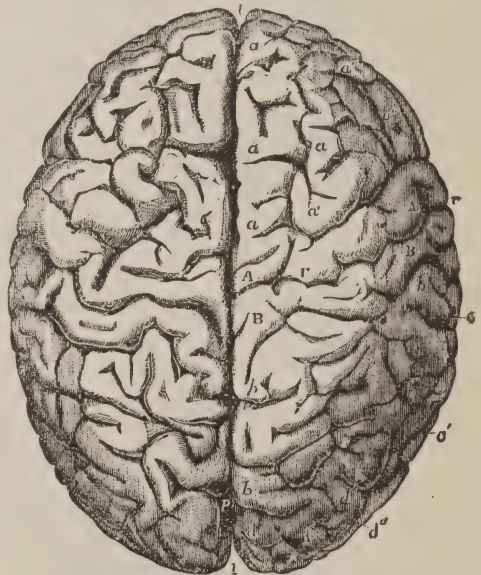


FIG. 18.—BRAIN HEMISPHERES.
TOP VIEW.

Fig. 18 represents the cerebrum or great brain as it would appear if it were taken out of the skull and we looked upon its superior or upper surface. It will be seen that there

is a deep line or cleft running through the whole length completely dividing the mass into two

tom view of the brain. The anterior lobes of the brain each (hemisphere has its lobes) from AA to BB

are regarded by phrenologists as the intellectual lobes in which the organs of the intellectual faculties are located. The cleft at the back margin of the anterior lobe at B is called the fissure of Sylvius which divides the front and middle lobes of the brain near BB. Between BB and CC are presented the middle lobes of the brain in which phrenologists locate the organs of the selfish propensities, such as Vitativeness, Alimentiveness,

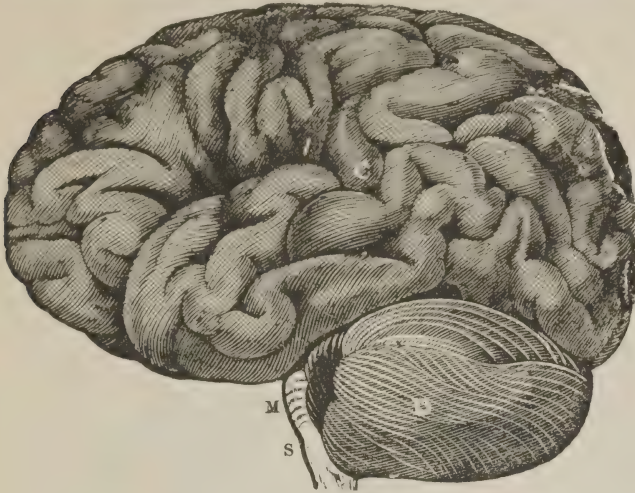


FIG. 19.—BRAIN, SIDE VIEW.

C cerebrum. D, cerebellum. M, medulla oblongata. S, spinal cord, where it passes out of the skull.

equal sections or hemispheres from top to bottom. These hemispheres are united by a white fibrous membrane in the central section called the corpus callosum; and this connection brings the two hemispheres of the brain into connection and co-operation.

Fig. 19 is a side view of the brain which presents the left side of the cerebrum, C, and the left side of the cerebellum, D, or little brain. The medulla oblongata, M, and the spinal cord, S, which is a continuance of M, passes through an opening in the tentorium and out of the skull and proceeds to form the spinal cord, running through the whole length of the spinal column, this being subdivided into infinitely small fibres which pervade every part of the body, giving sensation as well as motion.

There is another division recognized in discussing the brain, namely, lobes. Fig. 20 gives us the basilar aspect of the brain, the cerebrum and cerebellum when the whole mass is turned upside down. This is the bot-

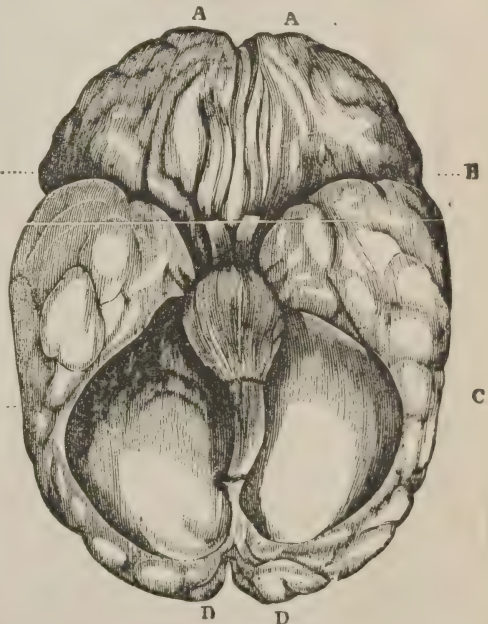


FIG. 20.—BRAIN, BOTTOM VIEW.

Anterior lobes from A, A to B, B. Middle lobes from B, B to C, C. Posterior lobes from C, C to D, D. Cerebellum, E, E. Medulla oblongata, F. Spinal cord, S, proceeding from the medulla oblongata, cut off below the skull, and laid on the cerebellum (see Brain, Side View). Fissure of Sylvius, dividing between the front and middle lobes of brain near B, B.

Combativeness, Destructiveness, Secretiveness, and Acquisitiveness. From CC to DD are the posterior lobes in which are located the social or domestic organs. EE shows the hemispheres of the cerebellum or little brain. F represents the medulla oblongata. S is the spinal cord attached to the oblongata. Thus the brain and the body through the spine have their connection and co-operation. If we turn and look at Fig. 19 again, we will see where the fissure of Sylvius divides between the anterior and middle lobes.

Fig. 21 shows the base of the brain of a North American Indian, and the reader can not fail to observe and mark the difference between Fig. 20 and Fig. 21. How much shorter and relatively smaller the anterior lobes of the Indian brain are in Fig. 21, AA to BB, and how much larger the middle lobes of the brain are from BB to CC; and then how much broader the middle lobes of the brain are, rendering the head so much wider between the ears. This gives significance to the breadth of the head of Fig. 9, page 22, and the narrowing of Fig. 10. The middle lobe of the brain in Fig. 9 is broad, the character is severe, executive, positive and plucky. Fig. 10 shows a narrow head; it may have intelligence and morality but it lacks pluck, push and power. The Indian is not intellectual, his knowledge is narrow and meagre, and relates to physical things, but his physique and the elements of severity and cunning, in fact all the animal propensities are enormously developed, as seen in Fig. 21. It is the case in all the crania of all the war-like tribes of Indians no matter where they dwell. They are the elements that make the tiger, lion and wolf, and all the carnivora in short, fierce and intense in their severity. They are the characteristics of the wild man whose animal propensities have been chiefly developed.

If we take an Indian child and culture him in the gentle amenities and sympathies of refined civilization, it will prevent the great growth of the middle lobe of the brain, and his children, if the mother were removed from savage life and trained in a similar way, would have an inheritance in which the middle lobe of the brain would be lessened and the anterior or intellectual lobe would be enlarged; so in the successive generations the shape of the head of the Indian would be transformed.

In civilized life where children wrangle and struggle for existence,

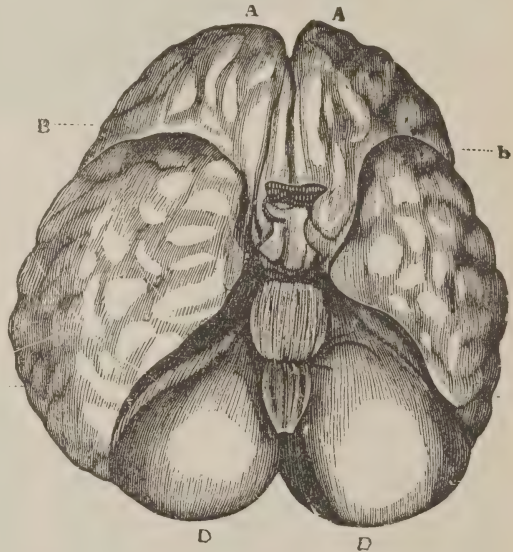


FIG. 21.—NORTH AMERICAN INDIAN.

and are largely savage in habit and impulse, they will be found to have round heads, broad heads, they will be cruel and cunning. A few generations of refinement and culture would change the form of the cranium as well as the disposition.

Fig. 22. This shows the right hemisphere of the brain, and the wall that is presented above the white band, called the corpus callosum, represents the cleft between the two lobes which runs clear through in front of that arched band and behind

it. This corpus callosum is a bundle of fibres which unites the two hemispheres of the brain, bringing them into connection and co-operation. In this engraving also is shown the cerebellum, which in this

into convolutions, or the deep foldings of the surface. The surface of the brain is composed of gray matter, and its outer covering is called the cortical substance, like the peel of an orange. It is also called ciner-



FIG. 22.—RIGHT HEMISPHERE OF BRAIN.

5. Corpus callosum. 9. Optic thalamus. 11. Pineal gland. 12. Corpora quadrigemina.
13. Crus cerebri. 10. Pons varolii. 22. Medulla oblongata.

case has been sliced off so as to show what is called the arbor vitæ, or tree of life. Here the gray and white matter are differently disposed from what they are in the cerebrum, Fig. 23.

Fig. 23. This figure represents a section of the brain including both hemispheres sliced off to a level with the corpus callosum, and the white substance of that structure will be seen connecting the two hemispheres. The Medullary or the white substance of the brain is here exposed in a large way and is surrounded by the convoluted margin of gray substance.

There is another anatomical marking besides the divisions of the brain into hemispheres and lobes, namely,

itious, meaning ash colored or gray. The gray matter is regarded as the special agent of mentality, and the deeper the foldings the greater the talent in the fortunate possessor. Within this cortical substance is the white, fibrous tissue of the brain which is called medullary matter. It is of a grayish white, and is developed from the medulla oblongata in radial fibres toward the surface where the fibres unite with the cortical substance; and the length of these fibres from the brain centre to the circumference indicate the development or magnitude of the brain.

In Figs. 1 to 4, the lines running from the opening of the ear for-

ward, upward and backward; and the back views of the same head in Figs. 5 to 8, with similar radial lines show the method of forming a large brain by the extension of these fibres; hence the Webster brain is broad, long and high; and the other heads represented, down to the idiot's, have shorter fibres

Webster head has as smooth lines as any of the other heads contained within its outline. There are no more bumps on Webster's head than on the idiot's head, but there is more distance from the opening of the ear, more massiveness, more power.

The reader now will understand why Fig. 20 differs from Fig. 21 in

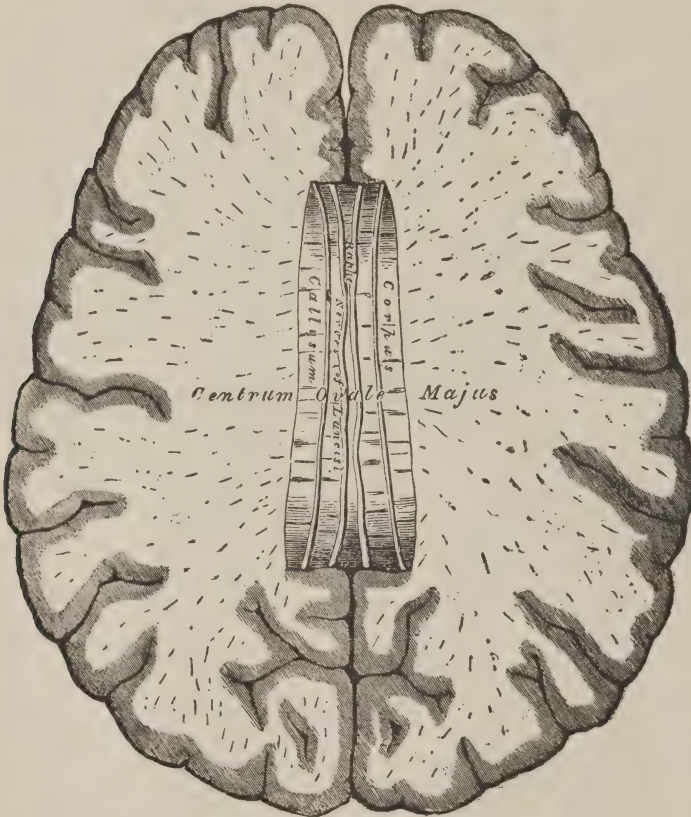


FIG. 23.—BRAIN, TRANSVERSE SECTION.

Section of brain on a level with the Corpus Callosum, showing white fibres, convolutions and gray matter.

and the heads are smaller; just as a small wagon wheel has short spokes and a large wheel has long spokes. So that in measuring heads and studying their formation, the phrenologist looks for the distance from the medulla oblongata or capital of the spinal cord to the surface of the brain. He does not look for hills and hollows, for little inequalities of surface. The

character. One, Fig. 20 has a modified middle lobe of the brain, the propensities and passions are restricted. In the Indian, Fig. 21, the character is developed through the middle lobe, the talents are not very much developed in his case through the anterior lobes. Another look at Figs. 9 and 10 will reimpress this thought.

Fig. 9 is a man to build engines

and run them, to quarry granite, to be a man of the executive sort, while Fig. 10, with the narrow head, could keep the books, could do the intellectual part of the business and keep everything straight in the counting room.

THE BRAIN IS FIBROUS.

The question of the fibrous structure of the brain was somewhat slow in

the brain is developed from that point by means of fibres toward the brain surface like the ribs of a palm leaf fan.

At this point a young lawyer of the village who was the professor of medical jurisprudence in a small medical college in that State, rose and asked permission to address the audience for a minute. Permission being granted, he said: "My friends,

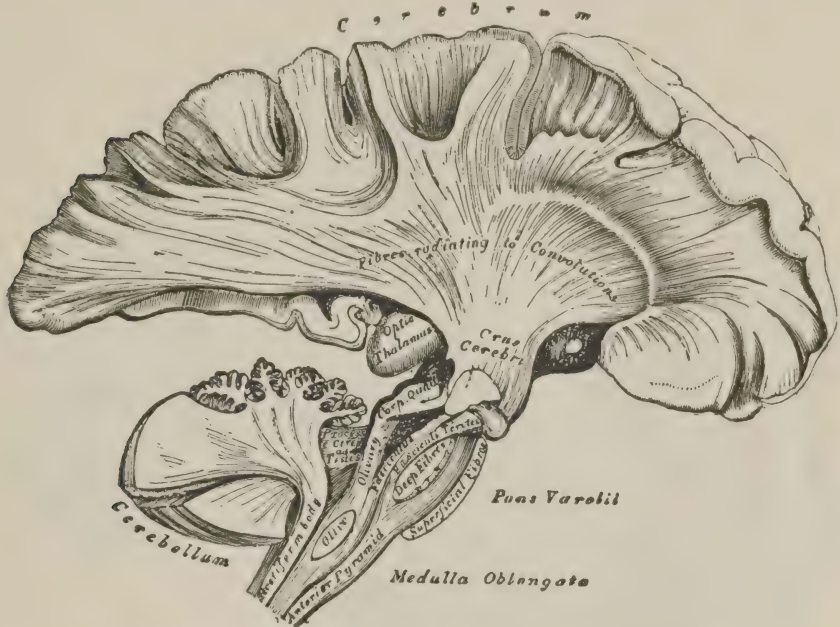


FIG. 24.—FIBRES RADIATING TO THE CONVOLUTIONS.

finding a lodgment in the anatomical and medical world. Gall and Spurzheim were opposed in Germany and in Paris because they claimed that the brain was of a fibrous structure, but they demonstrated it by dissection of the brain, and the microscope in its modern improvement has sanctioned their word.

As late as 1842, in a public lecture in Vermont, I stated that phrenologists did not estimate the mental organs as most people persist in claiming they do, by bumps, but by radial distance from the medulla oblongata to the surface of the brain where the organs are located; that

with all due respect to our young friend, the lecturer, I desire to say—and having had, as you know, some acquaintance with a subject relating to the brain and to the brain itself, I am prepared to assert—there are no fibres in the brain as there are none in a bowl of custard; it can be cut with a spoon as a custard can be. The phrenologist's theory of fibres must therefore be erroneous."

I replied that "Dr. Gall, the founder of phrenology, was a German physician, and in Germany physicians are supposed to be well educated; and he had such a standing that he was called to be physician to

the Emperor of Austria, in that city of scientific learning, Vienna; and among learned men in Germany he stood high and he taught that the brain was fibrous, as I stated it.

Dr. Spurzheim, associate of Dr. Gall, was also an educated German physician, and the two men in their lectures delivered in Paris, taught the fibrous structure of the brain, and the people of that learned metropolis were convinced by their demonstrations. They

recognized and stated the fibrous theory of the brain. Within ten years of the time when the Vermont lawyer disputed this doctrine, the great work called Gray's Anatomy, was published in London, which is still, in 1893, the standard text book of anatomy in every English-speaking medical college in the world. It illustrates the point in question by an engraving which is represented in Fig. 24.



FIG. 25.—BRAIN FIBRES DISSECTED.

were the men who taught the doctrine which I merely repeat here."

Of course this Vermont lawyer represented the state of medical science on this subject where he taught.

Five years previous to this, however, a professor of physiology, at Washington, who was opposed to phrenology, delivered lectures which were published, in which he plainly

In the engraving which is here copied, the cerebellum has been permitted to fall away from the cerebrum. In life it lies snugly up under the cerebrum. (See Fig. 19.) It was permitted to fall away so that the parts above could be better shown for the anatomical student.

Toward the base of the cerebrum the reader will see what we choose to

call a royal arch, made of the words, "Fibres radiating to convolutions." We have sometimes wondered what the Vermont lawyer, the lecturer on medical jurisprudence in a medical college, thought of this engraving the first time he saw it. Of course the medical college (to which he ministered in 1842) as soon, at least, as 1852, followed Gray and everybody else in teaching the fibrous structure of the brain. There are more fibres in the brain than there are in a bowl of custard. Yet many people still persist in talking of bumps, as if we looked for and followed them.

This engraving, Fig. 24, is a section of the left hemisphere of the brain, showing the medullary or white, fibrous structure. The gray matter at the surface can be seen in certain parts, though the object of the engraving was not to show the cortical or gray matter of the brain, but the white fibres.

In Fig. 25, we have also a left hemisphere of the brain, and we are looking at that side of it which joins the right hemisphere. They are separated from each other by the falciform process of the dura mater; and in this engraving there can be plainly seen the strip of gray matter attached to the convolutions at the surface, then the bands and lines of white fibres run from below, upward and outward.

In the measurement and study of heads, as indicated and illustrated by Figs. 1 to 8, it will be understood that by drawing a line through the head at the opening of the ears, it passes through the centre of the brain at the medulla oblongata; hence we study from the opening of the ear, and know that the medulla oblongata is exactly between them; hence the organs in the side head give wideness to the head. The organs in the top head are large in proportion to the length of the fibre from the medulla oblongata. The organs in the front head are long and large in proportion to the distance

from the opening of the ear forward.

If one will take a palm leaf fan and hold it in his hand by the handle and see how the ribs run, to the right, to the left and upwards, he may have a rough idea of the sections of the brain, the handle representing the spinal cord and medulla oblongata.

Some heads are an inch and a half wider above the ears than others. Some an inch and a half longer from front to rear. Some are long from the ears backward. Some are long forward and short behind. An apple is large because the distance from the core is great every way.

Some heads are irregular in form (See brain, Fig. 21), it differs from Fig. 20, showing a difference in the length of the fibre lines in different parts of the head. Fig. 20 shows a harmonious balance between the lobes of the brain. Such a head is developed by civilization and the laws which regulate life and character. Fig. 21 is very broad in the middle lobes. In that region phrenology locates the propensities, the passions, the elements of severity and force, policy, prudence and appetite, and when we compare that strong, selfish propensity department of the middle lobes of this brain with its anterior lobes from AA to BB, we see that the middle lobes are twice as large as the anterior lobes, whereas in Fig. 20 they are supposed to be normal and harmonious. The middle lobe in Fig. 20 gives power and executive-ness, and the anterior lobe gives knowledge and power to think, reason and plan, so as to exercise power wisely and humanely. Fig. 21, the Indian, is severe and selfish, his intellect is cramped and narrow and relates mainly to things practical and physical.

One person has a wide, short head; another has a large head in the base and low in the top. See Figs. 11 and 12.

Where the fibres are long the functions are strong. Where the fibres are short the functions are weaker, temperament and quality being similar.

CHAPTER III.

THE SKULL AND ITS RELATIONS TO THE BRAIN.

A person who wishes to understand phrenology and study its theoretical and practical sides must, of

meet it in the living subject, the peculiarities of the skull anatomically considered. The reason of this is because

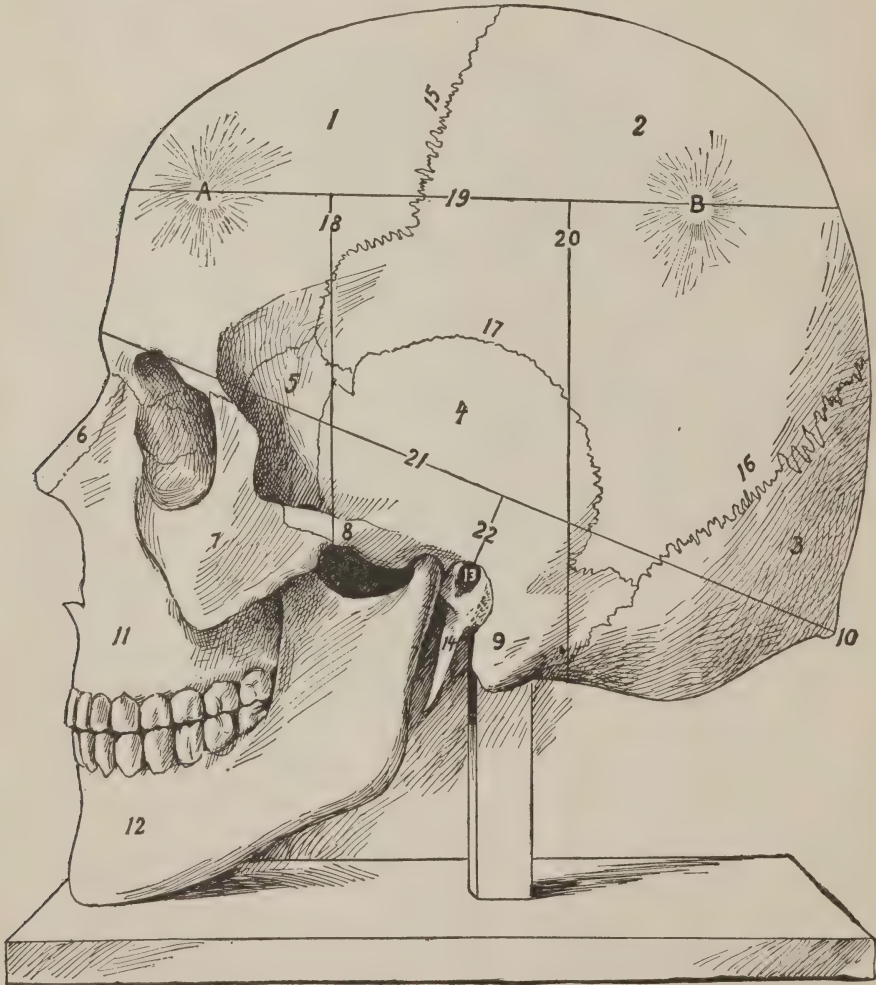


FIG. 26.—WELL BALANCED MALE SKULL.

course, take the head as we meet it in daily life, and he must also understand while he is examining the head, as we

the brain, in its different sections and anatomical lines, divisions and limitations, bears certain re-

lations to the anatomy of the skull, and to know where one of the lobes of the brain leaves off, and where another begins, he must know what re-

are called the super-orbital plates in the human skull, and the way to ascertain where the posterior margin of that platform terminates, and consequently where the anterior lobes of the brain are separated from the middle lobes. To find this see engraving of the skull Fig. 26.

The malar bone or cheek bone 7, will be followed by a pressure of the finger or thumb backward towards the opening of the ear, and upon the narrow bone 8, called the zygomatic arch, and under that bone there will be found a little notch from which we have drawn a perpendicular line 18. Inside the skull there is in the brain (see Fig. 20) a bottom view of the brain, what is called the fissure of Sylvius, indicated by letters BB. The anterior lobes of the brain AA are separated from the middle lobes by the ridge of Sylvius on the inside of the skull, which ridge fills the fissure of Sylvius; see Fig. 31, a bottom view of the inside of the skull.

Behind the opening of the ear, and a little back of the point of the mastoid process of the temporal bone, we erect a vertical line 20, Fig. 26. The petrous portion of the temporal bone lies under this line, a little back of the opening of the ears, and that ridge divides the middle lobes from the posterior lobes. An indication of that will be seen in Fig. 19, and also in Fig. 25. The position where we have drawn these lines may thus be anatomically considered and decided upon in three seconds by an expert examiner; for instance, if we stand at the left side of a patient, and run the thumb along from the cheek bone backwards towards the ear, we strike a narrow bone 8, and under that bone we find a notch, from which we draw the vertical line 18; then back of the ear, the mastoid process 9, can be distinctly felt, and just at the base of



FIG. 27.—BLACK HAWK.

Indian Chief of the Sac and Fox tribe, born about 1768, on the east shore of the Mississippi, near the mouth of Rock river; died in Iowa in 1838. He was a powerful chief—see the great base of his brain—and gave no little trouble in the war of 1812, and in 1831 and in the "Black Hawk war," of 1832, when his tribe was defeated by Gen. Dodge and Gen. Atkinson. Black Hawk was captured with two of his sons and seven of his warriors, who were brought East and confined in Fortress Monroe. In 1833 they were released and joined their tribe. A cast was taken of his head, which is in our collection, and from which these engravings were made. The head was large above and about the ears. He was a man of power in body and in courageous energy. What a face, what a neck!

lation the dividing line between these lobes bears to certain external marks on the cranium. For instance, the anterior lobes of the brain, which fill the entire forehead, lie upon a platform which is made by the arches which cover the eyes, and constitute the roof of the eye sockets. These

that we draw the other verticle line 20, and so we get our two vertical lines drawn, between which the middle lobes of the brain are situated. Now some men have a very large development of the middle lobes, see portraits of black Hawk, Fig. 27 and 28. Sometimes nearly two-thirds of the head seems to be developed in that middle lobe. See Fig. 21, North American Indian, between BB and CC, and contrast the middle lobes of that brain with Fig. 29, and see how much stronger the savage brain is developed in that region. The drawing of the skull before us, Fig. 26, is a pretty well balanced male skull, but we show the drawing of a skull, Fig. 29, the anterior lobes of whose brain, like that of Fig. 21, were much smaller than the middle. The same is true of Black Hawk, whose anterior lobe of brain forward of line 18 is small and short and narrow compared with the middle lobes. Where the lobes of the brain are properly harmonized the character is expected to be uniform and clear; that there will be enough of intellect for the region of propensity, and enough of the social to give harmonious and vigorous affection, and enough of the top head above the horizontal line 19 to manifest moral feeling; but in Black Hawk, the middle lobes of the brain are paramount.

Now all these matters will strike an examiner in one minute. When we see a man in the pulpit or on the rostrum of a lecture hall or rising in a court room to try a case, these measurements and consideration of the proportion of different parts of the head are grasped almost as quickly as a person can take an estimate of the features. Occasionally the nose is uncommonly large for the face, or the middle lobes of the brain are enormously large for the front and rear. The base of the brain under line 19 is heavy, while

that part of the brain above line 19 is low down, pinched and depressed like that of Black Hawk, and all this is done without any thought of bumps; indeed, the subject of

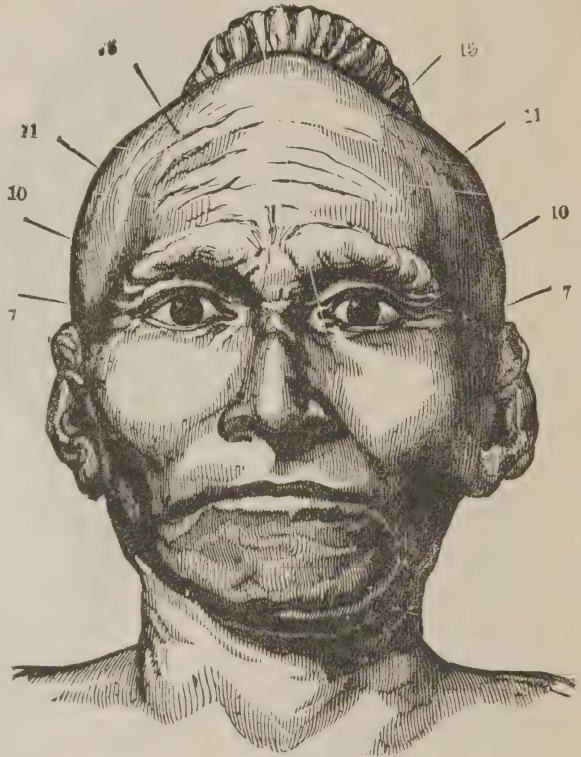


FIG. 28.—BLACK HAWK.

bumps becomes ridiculous when we consider the architectural and mathematical construction of brain devel-

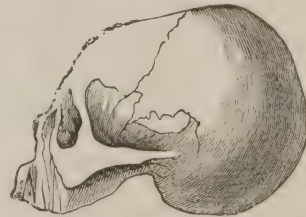


FIG. 29.—ANIMAL PROPENSITY.

opment and distance from the brain centre.

In Fig 21, as we have already referred, the anterior intellectual lobes of the Indian brain are comparatively small when considered in relation to the middle lobes; and in the portraits of Black Hawk in the front and side views, Figs. 27 and 28, the same will be noticed. The head is very wide through the sides. The Indian has much more of passion and of propensity than he has of intellectuality; the Indian has a narrow and superficial development in the intellectual departments, and is cramped in his reason and theoretical capability; he is governed chiefly by what he sees and by experience.

In the figure of the skull 26 we may say that the numerals have all a meaning. 1 shows that section of the skull which is the frontal bone, 2 is the parietal bone, 3 is the occipital bone, 4 is the temporal bone, 5 is the sphenoid bone, 6 is the nasal bone, extending about half the length of the nose; 7 is the malar bone, 8 is the zygomatic arch, 9 is the mastoid process of the temporal bone, to which muscles go up the side of the neck and fasten, and impart the rotary motion, or the side motion back and forth of the head; 10 is the occipital spine, 11 is the superior maxillary, upper jaw bone; 12 is the inferior maxillary, or under jaw bone; 13 is the opening of the ear, called by anatomists *meatus auditorius externus*; 14 the styloid process. The sutures or seams which unite the different bones of the head are: 15, coronal suture; 16, lambdoidal suture; 17, squamous suture; 18, the vertical line from the zygomatic arch, showing the division of the anterior from the middle lobes; 19, the horizontal line running from A to B, which is the centre of ossification, where those bones begin to form, upon the dura mater, the membrane which lines the skull and incloses the brain. As an egg is enclosed by skin first and then the shell is deposited or built upon it, so the skull is developed by fibrous radial lines of bone as seen at A and

B. Ice freezes in that way and sends out spicula; and when these bone fibres or radii extend from these centres in every direction, they finally meet with radii from other bone centres. At A and B these radial formations and extensions of bone are shown, and there would be another about in the middle line of the occipital bone and in other bones, and the sutures are formed by the interlocking of these radial spicula of bone.

The line 21 which is drawn from the eyebrow to the occipital spine at 10 shows the base of the anterior and of the posterior lobes of the brain; the middle lobe of the brain hangs below that line. From the external opening of the ear 13, we erect a line 22 at right angles with 21, and that shows the depth of the middle lobe of the brain, below the anterior and posterior lobes. Where the middle lobe of the brain is large and hangs down low, and sends the ear low down, we conclude physiologically that the person has strong vitality and a strong hold upon life. This line 21 was drawn by Mr. Abram Cox of Edinburgh and referred to by Mr. Combe in his system of Phrenology in the volume published in 1825. Mr. Powell of Kentucky in 1854 announced to the world that he had discovered that the base of the brain is devoted to the existence of life, and that by measurements, which he gave, the probabilities of the length of life could be prognosticated. In our drawing, Fig. 26, the line 22, drawn from the opening of the ear 13 to the line of 21, shows the depth of that middle lobe below the anterior and posterior lobes; and Dr. Powell called that line 22 the Life Line.

Dr. Powell, however, gives credit to Dr. Robert Cox, of Edinburgh, for showing how in this manner one could ascertain the depth of the middle lobes below the anterior and posterior lobes. Mr. Combe, knowing both Robert and Abram Cox, is doubtless right in attributing that measurement to Abram Cox. Mr. Combe describes

the base line and also gives engravings. Dr. Powell claims to have formulated the idea that the vegeto vital power depends on the middle lobes of the brain, extending below the line which Cox draws and which we have represented. We believe that in the strength of the middle lobes of the brain resides the power of life, and that the organs which belong to the sense of appetite, sight, hearing and breathing are related to the middle lobes of the brain. We believe that the width of the head above the ears also gives the power of vitality as well as the depth. It will be seen that all narrow-headed beasts, birds and fishes have a weaker hold on life than those who have a broad head; the narrow-headed ones are easily killed and they will yield to comparatively slight injuries, but the cat and the catfish have great tenacity of life; the latter will live all night after it is half cut in two with a spear, and only a little water in the bottom of the boat, while rabbits or shad, with their narrow heads, are very easily killed. The rabbit will die if smitten with the flat of the fingers on the side of the head, and a shad will die in three minutes after it is drawn from the water.

In order to make this matter decidedly clear, we insert a special drawing to represent a skull, Fig. 30, showing the proper measurements and making the measurement which indicates the depth of the middle lobes of the brain, as they project below the anterior and posterior lobes. A shows the base of the anterior lobes as they lie on the super-orbital plates. B shows the location of the occipital spine, or bony point in the back head, which also indicates the base of the posterior lobes, and the separation between the cerebrum and the cerebellum. It is not in all cases easy for a person not familiar with the matter to find this point and ascertain the exact location, but in some heads it projects three-quarters of an inch. C shows the life line,

drawn from the base line AB to the external opening of the ear, and the length of the line C shows the depth of the projection of the middle lobes

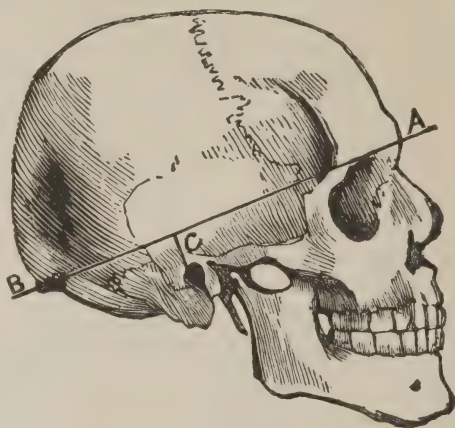


FIG. 30.—THE LIFE LINE.

of the brain below the anterior and posterior lobes. The greater the length of the life line C, the greater the tenacity of life under labor and care, and especially under injury and disease. If the line be short, that is, if the middle lobe of the brain does not go much below the anterior and posterior lobes of the brain, then the hold on life is feeble, but if the line be long, say an inch, or an inch and a quarter, then the person will keep the lamp of life burning, accidents excepted, to extreme old age. For more than fifty years we have regarded the width of the middle section of the head as being a measure of vitality and an indication of long life. When Dr. Powell's life line was promulgated, indicating the depth of the middle lobes as showing the length of life, we accepted that as an indication of long life. We may remark that the base line as drawn on Powell's cuts are not alike on the two skulls which he presents, and another thing, they are not according to his descriptions, the artist, we presume, not getting the right idea. Our drawing corresponds anatomically to Combe's description and to Cox's

method, and also to Powell's statement. It is not a difficult thing where this bony point, the occipital spine, can be located, to place the tape or other line, beginning at the brow and drawing the lines to the back of the head to the little bony point, or occipital spine, and the depth of the opening of the ear below this line is the life line. A person who gets used to it, a practical phrenologist for instance, can put his thumb on the occipital spine and draw the line with his eye from the brow to the point in the back head, and estimate within an eighth of an inch the distance of the line to the ear opening where it crosses above the opening of the ear. Physicians can do this without making any parade, and especially they can study the broadness of the heads as well as the depth of the middle lobes.

Dr. Lambert, an eminent lecturer on physiology and anatomy, was perhaps the first man in this country to make this point known; and he delivered public lectures, measuring the width of the head just forward of the opening of the ear, as well as the depth, and determining in that way the probable risk in matters of life insurance; and when he was president of a life insurance company in this city, he would measure the width of the head and also the depth below this line, and he would insure one who had a one and a quarter inch life line for about half the price at which he would insure one where the opening of the ear was high up and the head was narrow. Our view of the case presents Combe's method, and also that of Cox, Powell and Lambert all at once.

When Dr. Lambert was president of a life insurance company and accepted and declined applicants on the basis of these measurements, other companies became alarmed at his method, for of course when he saw a man had a strong hold on life, he would insure him for about half what he would have to pay at the other companies, and the others he would

tax higher; so Dr. Lambert would get the best ones at about half the nominal figures, and as he charged the short lived people double price, that would drive them all to the other companies, and they objected; and so Dr. Lambert's young institution had to succumb to the combined influence and opposition of the other and more established firms. But his was the only fair way to insure, on the same principle that a brick house should not be taxed as high with insurance as a wooden house with a shingle roof.

There are not a few physicians who have become familiar with this method of establishing the length of life; and when a child is born, if the middle lobe of the brain is narrow and small, and if the opening of the ear is high up, the doctor does not expect to raise that child; but if the opening of the ear is low down, when the line is drawn from the brow to the occipital spine, then the doctor expects that the child will thrive and endure all sorts of illness and injury, and live in spite of unfavorable circumstances. Hence the children of wealthy people, who can give them a fine education and surround them with all the comforts and amenities of life without any exertion on their part—these children are apt to inherit after a while a light middle lobe of the brain, while the children of the hard working poor, the people who have to smite and hammer their way to success, will have broad middle lobes of the brain; for they have to struggle and tussle and work their way to success as best they can. They have to work for food and raiment, and they have to defend themselves against quarrelsome assaults; so the children of the poor live, not because there is merit in dirt, squalor and poverty, but because there is constitutional vigor to the middle lobe of the brain, and many of them become the master spirits of their age. They have drive, force, push and enterprise; they are like steam engines well appointed; and in this country where

there is opportunity for the poor, if they have brain, numbers of men and women have risen to distinction, and have made themselves not only masters among men, but masters of millions; and when they work their way to success in this manner, they are called self-made. Occasionally, in other countries individuals break through the bonds of poverty and ignorance and rise to distinction. Their brain power sends them up to prosperity and success, and they climb the stairs; they do not wait for an elevator.

We have incorporated this basilar line of the brain 21 in Fig. 26, and also the life line 22, so that the one figure of the skull will carry the idea of this whole matter. In Fig. 31, the bottom of the skull, as we look

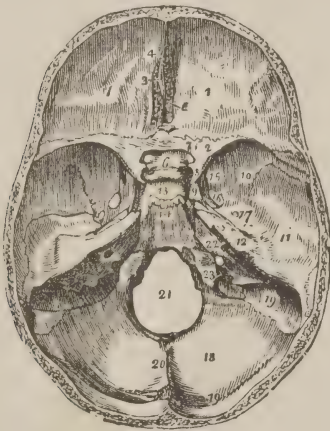


FIG. 31.—BASE OF SKULL.

down into it will be easily seen; the edge of the skull is shown where it is sawed off. In the front part are seen the seat of the anterior lobes of the brain, the back margin of that anterior lobe of the brain, and the margin of the middle lobe is shown; then the back section, the valley in which the cerebellum is located, is shown, and there is also the petrous portion of the temporal bone running in from the side towards the centre just forward of the foramen magnum 21, which is the dividing line between the middle and the posterior lobes, and the depression there holds the cere-

bellum. See Fig. 20, and see how nicely that would fit into the bottom of the skull before us; see Fig. 19, also D for the cerebellum.

Thus the intelligent reader will get a general idea of how the internal structure of the skull is made, and how to study the size of the brain and its different compartments. The topics herein contained have not been studied much by the general reader. They were usually counted as technicalities and slurred over, but he who would read character promptly and correctly should be informed, and apply his information to these divisions of the brain himself. One man may have a very short anterior lobe of brain; he may be weak in intellect; he is narrow headed, and yet he wears a good-sized hat, because the middle and posterior lobes are decidedly large. He has strong animal feelings; he is coarse and full of thunder and a great worker; the back head is strong, and so he is social, friendly and warm hearted; but still the top of his head may be low and small, and his front head may be deficient. He is little inclined to study and less inclined to moral ethics; he works hard and smites his way through difficulty, and he can be led and guided properly by superior brains, and thus become an interesting and important factor in the great work and struggle of life. Some men want others to plan for them and guide their power, then they are masters in their own field.

Every invention which saves muscle tends to widen the scope of mankind, multiplying the comforts of life and elevating those who use muscle. Where there is no machinery, hand labor makes drudges of men who have genius and deserve better things, yet strange to say, mere labor has inclined to oppose mechanical invention, just as farmers opposed railroads, which it was thought would put horses out of use and give no market for oats. Railroads have made horses widely required and a market for all the oats that could be raised.

CHAPTER IV.

THE SKULL AND ITS RELATION TO THE BRAIN.

FIG. 32. This skull is a companion piece for Fig. 26. It will be observed that the bones are lighter, less smaller and the bones are thinner, lighter and of finer grain. And it is not so massive in the base where Com-

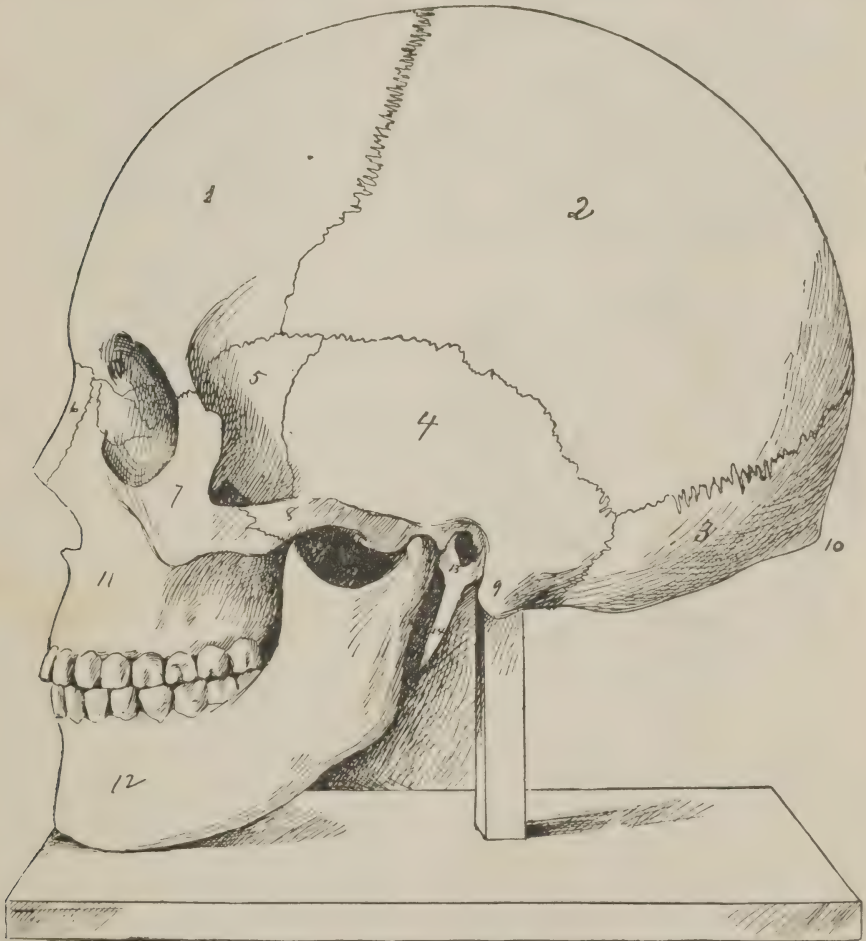


FIG. 32.—WELL BALANCED FEMALE SKULL.

massive and strong. The nasal bone is not so high, the cheekbone, 7, is not so massive, and the mastoid, 9, is less developed, and the occipital spine, 10, is

bativeness and Destructiveness and the selfish propensities are developed. Having the skulls in our possession we study them at our leisure.

It will be noticed that this head has a beautifully rounded top, the region of the religious and moral sentiments is well developed. There is not so much Self-esteem as in Fig. 26. The sutures are very smoothly united, and there is less of ruggedness in its structure, especially in the cheekbone, 7. The different bones of the skull are numbered in this the same as in Fig. 26. In describing the male skull, Fig. 26, we mentioned the principle of bone development by radial fibres or spicula, as indicated at A and B on Fig. 26 to which we referred.

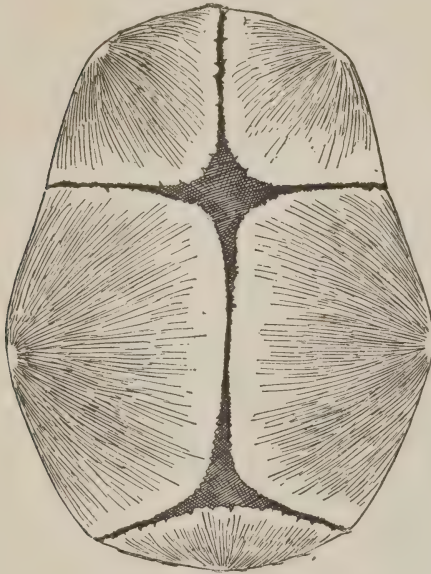


FIG. 33.—INFANT'S SKULL AT BIRTH.

Here the formation of the frontal, parietal and occipital bones is represented by radiating fibres. The central points where the bones commence to form are shown, which correspond to A and B in Fig. 26. The grain or fibre of the bone is seen to radiate from these centres till they reach corresponding fibres from the other bones. Between the frontal bones and also the parietal bones the sutures are distinctly seen. The edges of the bones approach but there is yet no locking together of the edges. The sutures are also seen along the top-

head, but they are not yet united; in fact, none of the sutures are united in the early years of life. In the centre of the top head there is a black place like open water in a partly frozen pond, that is called the great fontanelle or fountain, so named from the pulsations, which are perceptible like the rising of the water in a fountain. Four bones approach this point and do not yet cover the space. In infancy there are always two frontal bones; in adult life they are generally united by solid ossification, though we have several specimens of skulls in the office that are not ossified, they are merely closed up like the other sutures of the skull, and show two distinct frontal bones. The occipital bone, No. 3, it will be seen, has its centre of ossification, the fibres running to meet the parietal bones. All anatomists understand that the dura mater, a tough skin (which when dried is very much like a dried bladder), encloses the brain and in position and function is very like the skin which encloses the egg before its shell is formed, since the bony material of the skull is developed out of the dura mater and formed on its surface as the eggshell is developed out of its skin. The skull is formed in patches in separate and distinct parts. There is evident wisdom in that method. At birth, as we have shown in this infantile skull, the bones are separate, and pressure upon the head might throw it into almost any form without straining or breaking the bone, or without serious injury to the brain. The infant's head has a soft spot, a great fontanelle, which sometimes lasts for twelve months before it is closed up; and there is another opening in the back head where the sagittal suture unites with the lambdoidal suture, and this is called the little fontanelle, because it is smaller than the one in the top head. The bones of the skull not being firmly united, a blow or a fall is a little like striking or dropping a paper parcel, the force of the blow is not so severe as it would be if the skull were more solid in its

development. Another important provision in the fact of the skull being composed of parts or sections, is, that a fracture occurring in one bone from a blow usually stops at the suture, and the shock to the brain and skull would thus be much less than it would be if the skull were solid.

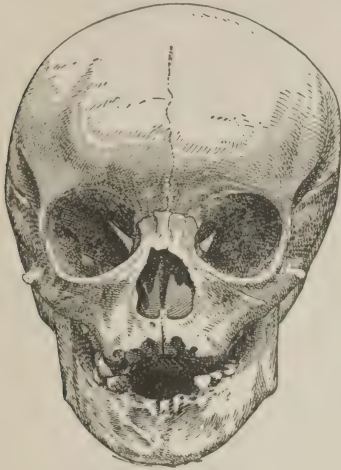


Fig. 34 represents the skull of a child with the frontal suture not yet consolidated. Perhaps one adult skull in five hundred has the frontal suture well defined and capable of being separated like the other sutures. In old age the sutures in most cases are solidly united.

Fig. 35. We here present the bones of a skull which have been separated by artificial means. If a person will fill a well-formed skull with beans or corn and lay it into a vessel of water so the beans or corn will become soaked and expanded, the joints of the skull will be opened as here represented. The frontal bone, 1, the parietal bone, 2, the occipital bone, 3, the temporal bone, 4, the nasal bone, 5, the malar bone, 6, the upper jawbone, 7, the lachrymal bone, 8, and the under jawbone, 9, can all be numbered as we have numbered them on Fig. 26. But the numbers are mere guides, not a law. The sutures between the bones are seen wide open and their ser-

rated edges, like saw teeth, aid in constituting the firm joints represented. Now all these bones in a



FIG. 35.—BONES OF SKULL SEPARATED.

child's head are available to growth. An infant's jaw is not large enough to serve the processes of later life; and the first teeth are small. The jaw grows and new teeth come, and the whole business is enlarged.

Imagine, then, these different bones being like the scales of an alligator with separating joints, and the bones growing as an alligator's scales grow. It is the easiest possible thing to keep the brain covered, shielded and protected. People forget that the skull is not a prison house for the brain, but a protection. Human clothes do not grow much, we have to get new ones, but the skin, however, manages to grow as fast as the boy does; that is alive; clothing is an outward garment; but the skull and the scalp have living tissues that expand and grow as the increase of brain requires.

Fig. 36 is a front view of the skull with the bones all separated. One is the frontal, 2 is the parietal, 3 the malar, 4 the nasal, 5 the superior maxillary or upper jaw, 6 the vomer which divides the nasal cavity, and 7 the under jaw. These bones do not look

as if they were intended to imprison anything, but since they are all fed by the same heart's blood and nutrition,

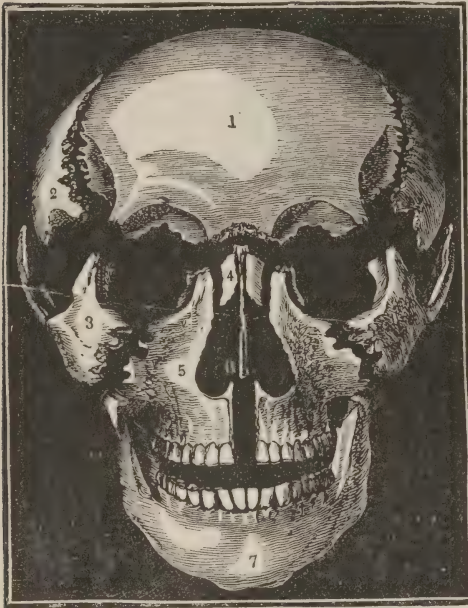


FIG. 36.—FRONT VIEW OF SKULL.

they grow, they live, while they protect they make room for its occupant.



Fig. 37 is a bottom view of the skull also separated. 1, is the occipital bone; 2, 2, the temporal bones; 3, 3, the

sphenoid bones; 4, the ethmoid bone; 5, 5, the malar bones; 6, the zygomatic arch, and 7 shows the opening in the skull called the foramen magnum, meaning the great hole through which the spinal cord emerges from the cranium. In the edges of these bones of the skull can be seen a rough serrated method of uniting the bones.

People often ask how it is that the brain can develop, being a soft, delicate mass, inside of such a bony box as a skull. It is not a bony box strictly speaking. When the brain is being developed rapidly in childhood and youth the sutures are not united and the growth can take place at the sutures and easily meet the necessary expansion of the brain. But people forget that the bone is live matter, that it receives nutrition by the blood just as the muscle does. A child's thigh bone will be six inches long, later on it is eighteen inches long; it is not stretched as one would stretch an elastic piece of rubber, but it is alive and grows. The finger nails grow larger every year, they are growing all the time during life. The method of the growth of the skull is supposed to be this, if the material of which it is composed is required to be removed to make room for the growing brain, the bony material is dissolved, absorbed, carried into general circulation, and new bony matter is formed a little further off, so as not to press upon the brain and hinder its growth.

Has the reader ever peeled the bark off a tree in the month of May, bark half an inch thick and hard enough to crack walnuts with? Every Spring the bark of the tree increases in size, not by wedge and screw pressure, but, the sap flowing between the bark and wood, the bark grows larger and leaves a space between itself and last year's growth of wood, and a delicate creamy substance is deposited between that bark and the old wood to form the new grain of timber. When a birch tree is peeled, and we know of no bark that is harder than that, inside of

it there is a creamy substance of half formed timber, which boys like to scrape off and eat as birch; it is very delicate. The ross or outer part of the bark of trees becomes cracked lengthwise, it is the outside shell, it is dead, it is a mere coating to protect it against the weather; but the inner part of the bark, the living part, grows in Spring and occupies more room and cracks the ross.

The analogy of the growth of the skull and other bone is like that of the growth of the shell of the turtle or shell fish. For instance, a clam shell is harder than the human skull and quite as thick, even thicker, and if a person will catch two clams of the same bigness, we will say that they are two inches in diameter, the shell will be a quarter of an inch thick and harder than a matured human skull. If one of these clams shall be killed, that is to say, opened and the shell put into a safe place and locked up, and the living one planted inside of sticks driven into the ground under water from which it cannot escape, if it be left there, for say, three years, then taken and opened and killed, it will be found that the shell of the clam that was locked up three years ago will go right inside of his shell and shut up nicely. Now every part of that shell has been reorganized over and over; it has been solid all the time, and yet every particle of it has been dissolved, absorbed and removed entirely out of its place, even the hinge has been reorganized; now it will contain the other shell bodily. But the clam did not elbow its way, it did not press against the shell, it did not force its expansion. The shell grew and made room for its occupant, and was in fact a living part of the occupant. How does the horn of the ox increase? It is hard and thick, but it grows fast. How does the hoof of the horse become larger from a colt all the way up? It does not split, it does not stretch, but it grows as the bark of the tree grows. The rapidity with which new bone grows when it has

been injured or fractured is remarkable.

A surgeon told me of a new thigh bone being formed in a very few weeks. The thigh bone became diseased and an incision was made in the thigh and the periosteum which covers the bone was opened by a slit, expanded, and the diseased bony matter for a distance of eight inches was taken out; and then new bony matter was deposited by the process of nature on the inside of the periosteum, as skull matter is deposited on the surface of the dura mater. The thigh bone in six weeks was sufficiently repaired or recovered to enable the man to walk.

I had a cow that would jump anything, but the moon, in the shape of a fence, and in one of her leaps she broke a rib and the ends slipped by about three quarters of an inch; and years afterward when she was fattened and killed the piece of the carcass that enclosed this broken rib was corned, and when it was boiled I carved it and there I found the spot where this rib had been broken and slipped by; and Nature had put a band of bone right around the lapped ends of it and also a support at the end of each piece so as to make it strong; and that mended bone we kept for years as a curiosity. Nature repairs its damages when it can. Remember that in the blood there is bone material in the form of phosphate of lime in solution, and wherever bone material requires to be nourished the blood has the material with which to do it; and it is carried on silently, persistently and successfully in the skull as well as in every other bone in the skeleton.

In cases of hydrocephalus, the skull grows and makes room for the accumulating water until the skull will contain as many as ten pints of water besides the brain. If the skull bone thus retires and grows so as to cover one and a quarter gallons of water, it certainly does not imprison and compress the brain. The blood vessels of the dura mater leave channels on the

inside of every skull like the beds of rivers and their smaller branches, even the fluid blood does not permit the growing skull bone to prevent its free courses. In fact, the skull bone itself has numerous blood vessels between its two plates to supply the means of its growth and change in size and form.

If the brain requires more room in one particular part of an adult's head than in other parts the bone is rendered thinner there and more plainly develops on the outside; so one part of the skull can thus be increased in size. If a person is very much excited in respect to any faculty and not so much in respect to others, in such a case the skull has been known to become exceedingly thin over the parts exercised, and after death by putting a light into the skull at the foramen magnum to illuminate the inside of the skull this thinness of the skull is vividly seen. Persons sometimes are troubled about something, for instance, the subject of devotion, religion, or are excited in regard to property, mechanism or music, and those portions of the skull over the extra excited organs will become exceedingly thin. Sometimes a faculty may be considerably more active and vigorous and the organ larger than the external examination would reveal. When the exercise and activity are equal in all parts of the brain the development will be uniform. A physician is sometimes confronted by incidents in which development or absorption may have occurred beyond the reach of his diagnosis.

In the next chapter we shall present pictures of some skulls in our possession on which one of our students, Robert I. Brown, experimented by lighting the interior with electricity in a dark room, then photographing the illuminated skull. It was a pretty slow, fatiguing process, there was so little light to make the pictures by; but he made some very nice specimens, showing the sections of the head where the brain was most active.

We could put the light into the skulls in a dark room and they showed bright places. But photographs of skulls had probably never been taken in that way before. We often pick up skulls and describe the leading characteristics by the fact of the extra thinness of the different parts of it.

In old age the whole skull sometimes becomes very thin because the brain is active and bone-making matter is not sufficiently abundant in their food to supply bone support, and the skull is partially absorbed to sustain the working bones of the system. In other old persons the brain is not active and shrinks, and there being abundant bone material in the food, the skull becomes thickened to supply or fill the space caused by retirement of the brain; some children are born with poorly formed bones because the mothers have lived on fine flour, butter, sugar, which are mainly devoid of phosphate of lime, and the children are rickety, bow-legged or hunchbacked, and the skull is a long time in closing the sutures and fontanelles; being delicate they are ignorantly fed on starchy pap, butter and sugar, and they become permanently invalid, or die in childhood. Oatmeal, the entire wheat and milk, with an absence of butter and sugar, will give bone and muscle to growing children and make them stalwart and robust. In Kentucky and Tennessee, in the "blue grass region," the soil reeks with lime, and every blade of grass and every other food product of the soil is laden with bone-making material, and the cattle, horses and people are bony, tall and strong. In regions where lime is wanting, or has become exhausted by cropping, the people and cattle are less tall, bony and strong; and to raise wheat all the land must be top dressed with lime to give the straw strength to stand up, but lime being a dear dressing for the soil, such economy is exercised in its use that the grain does not get lime enough to supply sufficient bone material to build up the frame-work of the eater.

CHAPTER V.

THE SKULL MADE THIN BY BRAIN ACTIVITY.

IT has already been stated that the bone is nourished and grows and changes in its form under the physiological laws of growth the same as the skin or bark of a tree, which is designed as a covering and a friend, and it can be modified to suit the growing brain, as the shell the growing clam, the bark the growing tree, or skin the growing fruit. The walnut is first small but it has a shell, and the growth of the shell accommodates the growing fruit within and serves as a protection rather than a prison. People sometimes forget that the skull and other bones are alive and susceptible to growth and development, just as the other tissues are. This being true, if a particular part of the brain becomes specially active, the skull becomes thin by the over activity of the brain beneath it. The bony matter is absorbed and carried into the general circulation and is reconstructed on a larger pattern further out. If a portion of the brain becomes dormant, as sometimes in old age the intellect ceases to be active, the skull there becomes thickened.

We have an interesting illustration of a case, Fig. 38, representing a skull which was presented for public examination at one of my lectures. It will be seen that there are certain parts of the skull that are light and other portions that are opaque, dark. Outward from the corner of the eyebrow there is a round spot which is bright, and the lower and back sections of the skull are also light. The forehead and top head are dark. It will be observed that there is a candle inserted in the foramen magnum or opening in the base of the skull where the spinal cord unites with the

brain, and the effect of the light of that candle is to render the portions of the skull covering the active parts of the brain brilliantly lighted; the opaque and dark portions of the skull are those which covered those parts of the brain that became torpid by disease. The incident I copy from my diary, which was carefully kept at the time, and is here copied from "Forty Years in Phrenology," page 81:

"A most interesting fact occurred in South Deerfield, Mass., at one of our public lectures when Mr. Buell and I were travelling together. We had given several lectures, and the whole people seemed aroused in the interest of our subject. There was a Dr. A., who professed to be a disbeliever in Phrenology, and had announced his disbelief to all the people. We were carrying all the citizens with us, and the doctor felt that he must seem to the people to be on the losing side unless he could make a rally and break us down, or bring the science into discredit.

"I rose one evening to commence the lecture, when Dr. A. addressed me from the back part of the room, and requested permission to say that he had a skull with him which he desired to submit for public examination at the close of the lecture. He said he knew the person well during life, and had written the facts so as to compare them with the statements of the Phrenologist.

"I replied, 'We will not wait till the close of the lecture, for if we make a mistake, as the doctor evidently hopes and expects we will, the audience may not care to hear anything more on the subject, and I might not feel in the

mood to lecture. So if we are to be vanquished I prefer to have it done while I am in full strength. Please bring forward the skull.'

just where the organ of Tune is located, on a space about as large as a quarter of a dollar. This was very bright from light, and apparently



FIG. 38. SKULL MADE THIN AND THICK IN PARTS BY ILLNESS.

"Mr. Buell and I examined the skull carefully while the audience remained in an excited whispering state. Behind the desk, out of sight of the audience, we put a lighted candle, which we carried for such uses, into the skull, and found that the light shone through it at the sides and back part of it in the region of the passions and propensities, as if the skull were made of a few thicknesses of oiled paper. In front, in the region of the intellect, all was dark, as if the skull were very thick except on each side,

scarcely thicker than letter paper. Besides, the front half of the skull felt heavy, and, holding it in the center it would balance forward, with a bump. We noticed that the form of the head was like that of a female, the bones of the face were light, and the general quality of the bone was delicate and the teeth were young. Our conclusion having been thus reached, I called for a person to act as reporter, to take down all that would be said, so as to compare it with the biographical paper the doctor

had prepared. All things being ready, and the audience painfully intent to hear the statement, I commenced slowly, so that every word could be written:

"This is the skull of a female about twenty years old. She had a well-balanced head and character up to about fourteen years of age, was bright and intelligent, a good scholar, and ambitious, energetic and affectionate; but something happened about that time that spoiled her intellect with the single exception that her musical talent remained very active. Meanwhile the propensities were made unduly active, and not being regulated by the intellect or moral sentiments, she became quarrelsome, cruel, cunning, avaricious, gluttonous, and inclined to social debasement."

"I then called on the doctor to send up the biography. But he hesitated and said, 'the description had in some respects corresponded with the real character, but he thought it was all guess work.'

"I replied: 'Doctor, you brought this skull and offered it as a challenge, saying you had the sketch written in your pocket; that you knew all about the person who carried the skull, and now you try to palm off an oral statement and insult us by the claim that if we have in any sense described the person it is "guess work." This course is unfair, it is unmanly, and being a medical man, it is wholly unprofessional. I demand "Cæsar's will," and hope the gentleman near the door will not permit the doctor to carry it away. It is due to the audience, it is due to us, it is due to the doctor, and to truth, that we have it to compare with our statement.

"Then the audience clamored for it, and the doctor sent it up. I then invited the venerable Deacon Graves, who occupied a front seat, to ascend the platform and read both papers. First, the doctor's, then our statement. If I remember correctly, the whispering in the audience had ceased, and there was stillness that

could be felt. The good deacon read with dignity:

"The skull presented is that of a girl who was remarkably bright in every respect, and possessed a most excellent disposition until she was about fourteen and a half years old. She was forward as a scholar, and excellent in music. She took a heavy cold, followed by brain fever, and when she recovered from it her intellect was utterly gone, except the single faculty of music, and though she lived six years as an idiot, she would sing like a nightingale. Her temper became very violent, and she was a terror to her friends, and what was worse, she became vulgar and obscene. She was a patient of mine, and I knew her entire history.'

"The audience listened to the reading of my statement, and then broke out in prolonged applause.

"The doctor then came forward to the platform and took me by the hand, saying: 'This removes the only stumbling-block I had in regard to the acceptance of Phrenology as a science. I thought a head so well shaped would deceive you, but you have not only described her, as she really was before she was ill, but as she was after sickness spoiled her, which I thought it impossible for anybody to do.'

"I put it to vote if the lecture should then be given, and I really have forgotten how the vote stood, but Dr. A., having taken a seat in front, I know he voted for the lecture. While we remained in town he did all he could to make our stay a pleasure and a profit."

Perhaps the above statement is sufficient to cover the whole subject, but we may say that if we had had the living case, we should instantly have detected the fact that she was an idiot from her appearance. If we could have laid a hand on the top of the head and could have induced the subject to speak or cough, the top head would have been destitute of a vibration which belongs to a subject that has a thin skull. If we had laid

the hands on each side of the skull, where it looks white and where doubtless, it would have felt hot to the hand, there would have been a sense of vibration if the patient had spoken, and thus we could have determined what portions of the brain were stupid and dull and what were active and excitable.

But we are not now arguing that every skull in every case, where disease may have disturbed the normal activity of certain parts of the brain, can always be determined by an external examination. Our object now is to show that Phrenology is true, that different parts of the brain manifest different faculties, and that the skull is always thin over a very active brain, and is likely to be made thin over those parts of the brain that are specially active, and thicker over those parts which are inactive. In the case of this subject, the shape of the head indicated what the girl was at fourteen years of age; that her intellect was good, her moral sentiments were well developed, and the light being put into the skull indicated what parts of the brain had become inactive and what parts had remained active; and the character corresponded with the phrenological explanation of the case.

I was acquainted with a lady in Brooklyn, Mrs. D., who was very intelligent and well educated. She had large Veneration, which gave devoutness, and not very large Spirituality, which permitted doubt and disbelief. She was inclined to be an intellectual skeptic on the subject of religion, and though she would intellectually criticise the methods and beliefs and manners of religious teaching, her Veneration was so large and active that it would attract her to hear all the preachers of renown, and she would wait at the foot of the pulpit stairs until the minister came down, and cordially thank him for the interest which his discourse had awakened in her mind; and being a stately and splendid looking woman of

fine appearance and conversation, she commanded his respect, and she would ask him when he would give her an hour to converse with her on religious topics. He would politely set the day and hour, when she might visit him, and with her culture and her sharp intellectual criticism she would command his respect, and sometimes bother him with her questions and answers; and her intellectual skepticism on religious subjects was noted, and she was equally noted for the deep interest that she seemed to take in the subject of religion; she was drawn to it and could not accept it theoretically; she had the feeling, but her intellect craved an analysis and a demonstration that would remove all doubt, and she was troubled to get it. She finally had apoplexy, and the apoplexy occurred in the very point of Veneration; and they made a post-mortem examination, removed the skull cap, and the skull over a place about as large as Veneration occupies was worn so thin that it was transparent almost when they looked at the light through it.

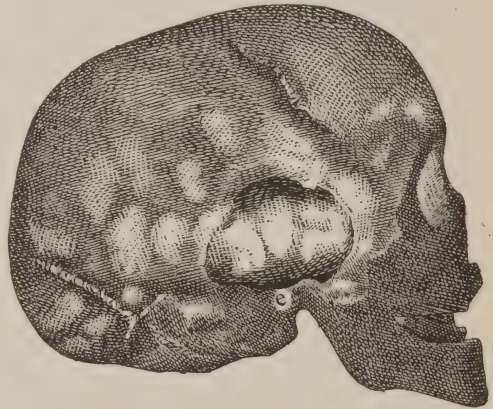


FIG. 39.—CHILD'S SKULL ILLUMINATED.

We now present in figures 39, 40, 41, photographic illustrations of three skulls that have been subjected to experiments with the electric light by R. I. Brown.

Fig. 39 is the skull of a child; the skull was thin, as the light places show, and to human sight when it was illuminated it looked

like some thin china-ware vessel, not transparent, but was very thin and emitted light all over it; but when the process of photographing was undertaken, the room being dark, the light which was rendered through the skull was not sufficient to make a

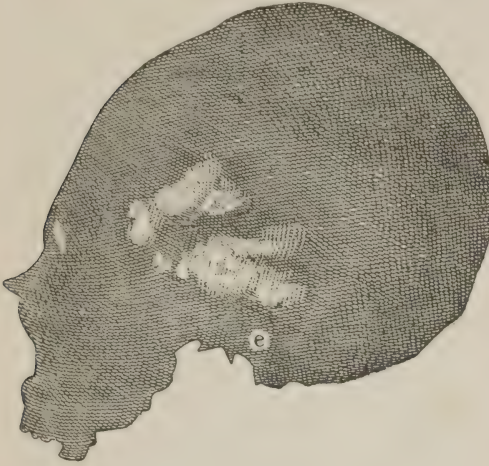


FIG. 40.—A MURDERER.

very distinct photograph. It will be noticed that there is light shown in every part of the forehead, along the side head, in the back and base and along the upper side head. This experiment can be tried in a dark room with a taper or candle, and it will please the medical student to see how brilliantly the light will show itself, especially through the skulls of children.

Fig. 40 is a side view of a skull we have in our possession showing that the front part of the head was narrow, pinched and diminutive, and that the portion lying behind the line drawn vertically from E, the location of the ear, was comparatively large. The intellectual region is very weak; the moral is also weak; while the region of propensity and force was decidedly strong. This is the skull of a murderer having strong Firmness and Self-esteem,

large Destructiveness, Secretiveness and Acquisitiveness. The light spots are located as follows: The upper ones are the location of Ideality, upward and backward from the location of Tune, which is also light. The lower large section of light shows Alimentiveness, Destructiveness and Acquisitiveness. The skull itself shows these regions very prominently developed, and the light placed inside illumines the side brilliantly. See the difference between the front parts of 39 and 40; the child was extra intellectual and sympathetic, and had the mental temperament, and was probably precocious, and was relieved from the worldly struggle early. Fig. 40, the murderer, was hanged in the prime of life; he was low in his tastes and tendencies, selfish and brutal and criminal in his conduct.

Fig. 41 is an adult skull and the large patches of white show the activity in the region of Ideality, Sublimity, Cautiousness, Secretiveness, Combativeness, Acquisitiveness and Alimentiveness. That is a well proportioned skull. It is as large be-

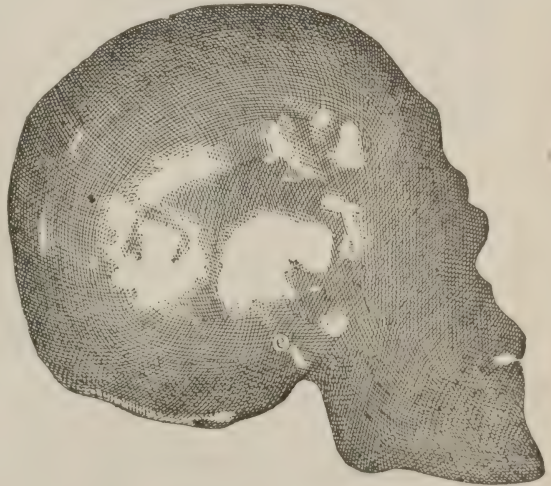


FIG 41.—ADULT SKULL ILLUMINATED.

hind the ears as that of the murderer (Fig. 40) and very much larger in the intellectual and moral regions. This man had the intellectual and

moral qualities sufficiently strong to regulate the propensities and passions. Fig. 40 had the propensities and passions no stronger than 41, but he had less of the guiding and restraining traits, and probably poor culture and unfavorable circumstances, which combined to lead him in the lines of low life and despicable conduct.

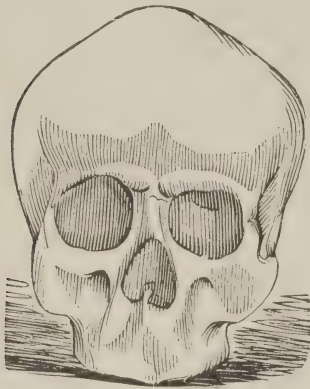


FIG. 42.—DIANA WATERS, VENERATION VERY LARGE.

Figs. 42 and 43 are a front and side view of the cast of the head of Diana Waters, who was a resident of the city of Philadelphia and died there. She was regarded as a religious lunatic. She had Veneration and Cautiousness very large, Spirituality and Conscientiousness large, and Hope moderate.



FIG. 43.—DIANA WATERS.

She was remarkable for her devotional enthusiasm; when an impulse of prayer came over her, she would kneel in the street and pray. Gentlemen have told

me that her prayers had an unction which seemed to bring the very heavens down, and hundreds of men would stand with heads uncovered as they came along, and people at a distance would hasten to hear her prayer to partake of its divine inspiration. After her death her skull was examined, and over the region of Veneration it had become so thin that it was literally worn through by the superior action of that part of the brain; it had wanted room and the skull had been developed into a hill and kindly absorbed from the inside to make room. In the front view of the head the region of Veneration towers up very high, located, as it is, on the middle line of the top head. In the side view, Fig. 43, the elevation is shown. She was not remarkable for her intellect; she had very little culture; she earned her living by washing, and when she was approaching home with a basket of clothes to be washed she would set the basket down against the house on the sidewalk, and kneel down in the corner by the steps, and, as before described, would have an audience of scores or even hundreds of reverent and entranced listeners.



FIG. 44.—PATTY CANNON, MURDERESS.

Patty Cannon had a fine intellect, small veneration and powerful passions. She lived in Maryland, near the line of Delaware. She was at the head of a gang of desperados who stole slaves and run them south, was arrested for many murders, and committed suicide in jail about 1830.

CHAPTER VI.

THE FACIAL ANGLE; ITS INDICATIONS.

EVERY one whose thoughts are turned toward the study of the mind eagerly seeks some method of estimating mental capacity. It is not strange, therefore, that any system of measurement which promises to give a rule for determining the grade of intelligence or the relative rank of intellect in men and animals should awaken interest and invite investigation.

Prior to the publication of the discoveries of Drs. Gall and Spurzheim, men studied faces, measured the angles of the face and the proportion existing between the weight of the brain and body, but nothing which would serve as a rule and stand the test of criticism was found.

In the latter part of the eighteenth century, just before Dr. Gall promulgated his discoveries, on which for many years he had been engaged in study and observation, Professor Camper, of Berlin, proposed a new method of measuring the skull which soon attained great popularity. He claimed that the basis of comparison between nations may be found in the angle formed by a line passing from the opening of the ear to the base of the nose, and another line drawn from the most advanced part of the upper jawbone to the forehead above the root of the nose. The annexed cuts, Figs. 45 and 46, will illustrate the point.

It will readily be seen that if more brain were developed in the forehead of the Indian it would elevate the line in front of the face and give a much better angle. It is not that the face is larger but that the forehead is shorter, that makes the difference in the facial angle in this case.

It will be understood that the facial angle, as measured and estimated by Camper, is merely a measure of the

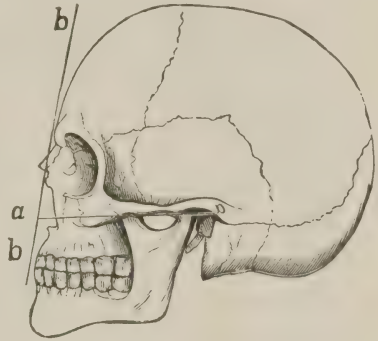


FIG. 45.—CAUCASIAN.

relative projection of the forehead and of the upper jaw, and does not measure the capacity of the cranium nor the size of the brain. If the jaw

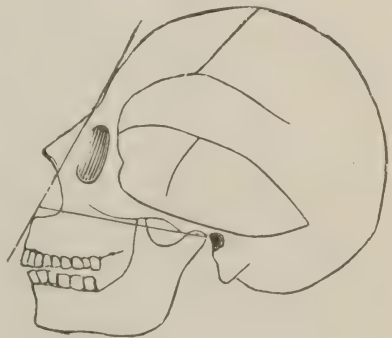


FIG. 46.—INDIAN.

be long it will diminish the angle. A prominence of the lower part of the forehead will increase the angle, though the head be neither high nor broad. The angle may differ greatly between persons of the same size of brain and similar mental capacity.

In the lower classes of men, both in civilized and savage countries, the middle lobes of the brain, in which are located the animal propensities, are larger than in the better developed of mankind. This tends to depress the opening of the ear, thereby enlarging the facial angle by carrying down the outer end of the lower arm of the angle. If the reader will look at the engraving of the Caucasian skull (Fig. 45) he will see that the opening of the ear is much higher at the end of the line D than is the front end of the line A. A glance at the engraving of the Indian skull (Fig. 46) will show that the opening of the ear is so low that the base line rises as it approaches the perpendicular line at the base of the nose. This fact makes the facial angle of the Indian much better or larger than it would be if his ear was as high up as the Caucasian.

When these angles are exhibited separately from the cranium (Fig. 47)

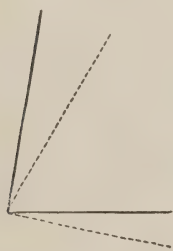


FIG. 47—ANGLES
OF 45 AND 46.

the solid line representing the Caucasian and the dotted line the Indian, the contrast is marked. If the opening of the ear of the Caucasian were as low as that of the Indian and the line of the face as it

now is, it would enlarge the angle and make it greater

than a right angle. Or, if the Indian's ear were raised as high as that of the Caucasian he would show a very acute angle. The relation of the ear to the face and the development of the intellectual part of the brain is the true point of study and the basis of value to the facial angle.

Camper's facial angle is thus seen to be defective, and quite unreliable and at best valueless.

More attention has been paid by naturalists to the contrast between the forehead and face than

to the actual measurement of either; they talk learnedly of facial angles and of the form of the jaws and teeth, neglecting to estimate the length of the anterior lobes of the brain and the size of the entire brain.

They measure everything but the brain, some of them avoiding that, lest they should be supposed thereby to indorse Phrenology.

A NEW FACIAL ANGLE

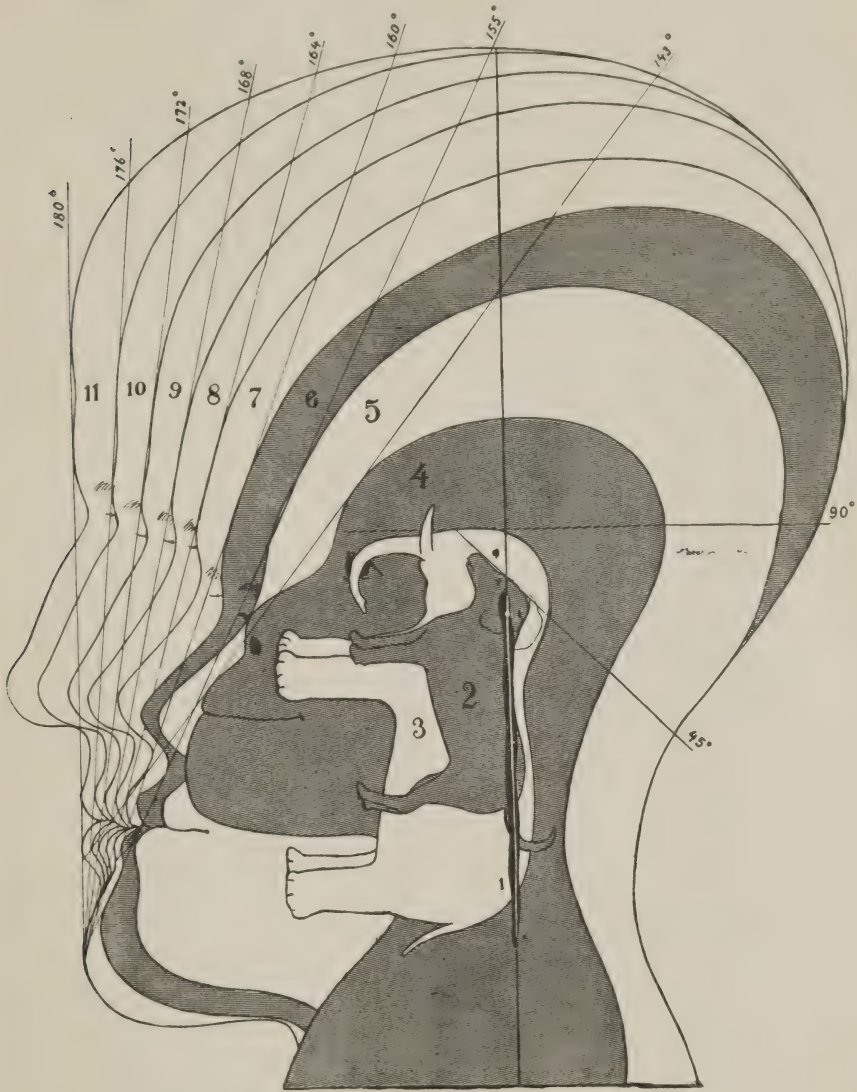
FIRST DESCRIBED BY NELSON SIZER.

We now present a new method of measuring the facial angle, with an explanation which lies at the foundation of all the significance and value there possibly can be in a facial angle.

About the year 1857, on the occasion of the first exhibition of Du Chaillu's collection of Gorilla crania to a large company of thinkers and men of science, invited by Cyrus W. Field, for that purpose, to his house in New York, I was requested to explain to the company the rank occupied by the Gorilla in the scale of being, as indicated by the cranial development. This request was made quite unexpectedly to me after the company was assembled; for I was expecting like the rest, to hear from the great Gorilla-hunter himself. Thus confronted by an exigency I hastily sent to our Phrenological collection for specimens of skulls, ranging all the way from the snake and turtle to the highest type of humanity. On that occasion, and with such ample means of illustration, I elucidated the fact—the first time, as I believe, that it had been done in that manner, or on that principle—that the face of the snake, the fish and the turtle is on a line with the back or spine; that as the brain is increased in size at the spinal axis, and an animal is thus raised in the scale of intelligence and mentality, the face is necessarily pushed, by this increased development of the brain, forward and downward out of line with the spine, and thus the faces made to form an angle with the spine. I illustrated this thought before the dis-

tinguished audience, including Dr. Francis, Rev. Dr. Bethune, Rev. Dr. Ferris, Chancellor of the University; Hon. Geo. Bancroft, the historian,

rear end of the skull and that the spinal column was projected straight backward—that the animal's face was on his back. Then taking the skull



FIGS. 48 TO 58.—NEW FACIAL ANGLE, COMPOSITE.

Fig. 1.—THE SNAKE
2.—DOG
3.—ELEPHANT

Fig. 4.—APE
5.—HUMAN IDIOT
6.—BUSHMAN

Fig. 7.—UNCULTIVATED
8.—IMPROVED
9.—CIVILIZED

Fig. 10.—ENLIGHTENED
11.—CAUCASIAN—Highest type.

and nearly a hundred others, by holding in my hand the skull of a turtle, a snake or a fish, and showing that the opening of the skull, the *foramen Magnum*, was at the

of a dog and placing a pencil in the *foramen Magnum* to represent the spine, the face formed an angle with the line of the spine of about 45 degrees. Then the ape family, in-

cluding the Gorilla, with more brain at the spinal axis, turned the face still more away from the line of the spine and caused the face to make a still larger angle, and so on through the tribes of mankind.

We introduce an engraving, of a composite nature, Fig. 48, to illustrate the subject, containing eleven figures, ranging from the snake to the highest form of human development.

The spine of the snake, Fig. 1, in the group, occupies the place of the spine of each of all the other figures in the engraving. In the snake, Fig. 1, the face forms *no* angle with the spine. In the dog, Fig. 2, the brain pushes the face out of line with the spine about 45° . In the elephant, Fig. 3, the face is at right angles with the line of the spine and therefore makes an angle of 90° with the spine. In the ape, Fig. 4, the face is turned beyond a right angle with the spine, and lacks only about 37° of being parallel with the spine and on a line with the front of the body. It has departed from the snake quite 143° . The idiot, Fig. 5, shows that the line of the face is raised to 155° . In the Bushman, Fig. 6, the brain being more enlarged, it pushes the face still farther toward the perpendicular, lacking only 20° of the Caucasian, and finally running through several grades of human development, Figs. 7, 8, 9, 10, to the highest, Fig. 11, the face, instead of being on the back, as in the snake, and on a line with the spine, it has performed half of a complete revolution and is now directly opposite of the back on a line with the abdominal surface and parallel with the spine; the body is erect, the spine and face being perpendicular, the face having been carried around through 180° , solely by the development of the brain at the top of the spinal column. All the value of any facial angle as an index of the rank of the animal or the man is explained by this mode of development. At the conclusion of this exposition Mr. Bancroft took my hand in both

of his, and shaking it cordially, said "I thank you for this explanation, it seems quite new, and I feel instructed, sir, I feel instructed."

Since the promulgation of this idea in 1857, to the present time, every year I have sketched this illustration on blackboards and explained it to public audiences and private classes, and had sets of drawings made for use in public lectures and for our students in the lecture field.

In 1874 Dr. Dexter, of Chicago, published in the *Popular Science Monthly*, in connection with a labored article, an illustration under the title, "Facial Angle." In his illustration the fish, snake, crocodile, eagle, dog, baboon and men appear. He recognizes, however, only one-half the change which really takes place in the development of the natural facial angle. Instead of keeping the spine of his fish and snake on the line of the spine of the dog and man, as we do, he projects it directly back from the head of his man, whose face is raised only at right angles with the spine of the snake, when it ought to be pushed away from the line of the spine, not 90° only, but 180° .

A student of ours in 1872, mark the date, C. A. Beverly, obtained of us a set of separate and combined drawings representing this mode of brain measurement, to serve him in public lectures, and carried them with him to the Chicago Medical College, where he graduated and, we believe, Dr. Dexter was a professor; and during his stay at the medical college Mr. Beverly lectured to the students and probably to professors, showing and explaining my drawings. Dr. Dexter's drawing was evidently intended to embody my idea, but he failed to do it justice by just one-half. In self-defense I had an engraving similar to the present and published it, with my discovery, in the *PHRENOLOGICAL JOURNAL* for July, 1874.

We commend to our readers a careful study of our illustration. It shows that the snake, Fig. 1, and his face, like

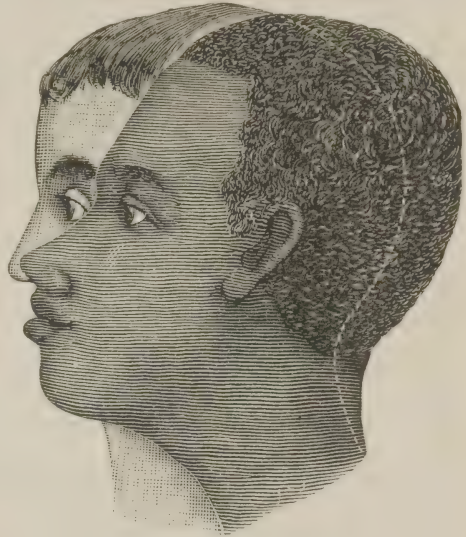
that of fishes and reptiles generally, is level with the line of the spinal column. Between the Bushman, Fig. 6, and the highest type of Caucasian, Fig. 11, there are really very many grades of development, far too numerous to be represented. From the snake to the top of the scale, the opening of the ear is represented in the same place, and all the changes in the portraits, shapes of head, and position of face, are due to growth of development of brain from that common centre at the top of the spinal cord, called medulla oblongata. Thus the scale of development is complete from the reptile to man.

Figs. 59-60. In this double picture we represent the head of the Caucasian, with his vertical face and ample development of the forehead. We lay over it, bringing the opening of the ears together, the head and face of the native African, who by some would be said to have a projecting muzzle, or prognathous jaws. The face does not protrude from the opening of the ear any farther forward, except at the lips—that is, the bony part of the jaw does not advance any farther from the opening of the ear than in the Caucasian head, but the frontal lobes of the brain being smaller than those of the Caucasian, permit the face to fall back at a considerable angle. If by culture that intellectual region of the African head could be developed, the face would not be protrusive. The form of the posterior part of the Caucasian head, which lies behind that of the African, is indicated by the dotted lines.

In the white man's skull we sometimes find the distance from the opening of the ear to the centre of the forehead an inch longer than from the opening of the ear to the occiput, while in the negro's head it is frequently half an inch or an inch longer in the rear than in the front; then if we add the strong, uncivilized features to this setting of the brain backward by decreasing the size of the head in front of the ear, and increas-

ing it behind the ear, the notion of the muzzle and prognathous jaws becomes absurd by understanding that it is the deficiency of frontal head, not an excess of face.

Those who investigate skulls should always begin at the opening of the ear, which corresponds to the capital of the spinal cord, from which the brain is developed in every direction, as we study a wheel by starting from the hub, or an apple by starting at



FIGS. 59-60.—A DOUBLE PICTURE.

the core. Some apples have one side much larger than the other, and it would not be fair to centre that apple anywhere but at the core, and let the deficient side take the responsibility of its own deficiency. Hence we match the heads in this picture at the opening of the ear, and let the projection of the development manifest itself from that centre. If the intellectual portion of the negro's head were better developed, the face and forehead would cover the white man's head, and, like his, be perpendicular.

This contrast also intensifies the significance of the new facial angle and teaches a new and better way of studying different heads and faces from the snake to the Websterian type.

If the reader will turn to the outline heads, Figs. 1 to 4 on page 12, he will see the doctrine of the new facial angle pointedly illustrated. The face of Webster is vertical. The forehead stands out beyond the eyes, and although the face is large and strong the brain above the face is the massive factor that attracts attention and commands respect. Figs. 59 and 60, page 49, show the Caucasian and African, normal specimens. Figs. 1 to 4, page 12, show the large and grandly developed head of Webster, which, from the face of the snake, the turtle and fish, has made an advance of 180 degrees away from the line of the spine. The contrast between Webster and the idiot, Fig. 4, shows the extreme of healthy organizations; Webster, if regarded as standing at the head of intellectual human life, and No. 4, the idiot, ranking as the lowest healthy human being. The formation of these heads shows in the anterior and upper regions more difference than there is in the back head or in the basilar, animal region. Physical existence in the idiot may generally be rather low, but the mother of this one had four other similar children, and the parents, although healthy in body, were at best semi-idiotic. The physical functions merely may be as strong as in the philosopher, the difference being in the development of the brain.

Figs. 59 and 60 show the intellectual superiority of the Caucasian and the relative deficiency of the African, yet the African in this case is more strongly developed in the region of the crown and in the posterior or social region than the average Caucasian. What the African lacks is mainly intellectual development and culture. In Fig. 3, page 12, we have a malefactor, developed largely in the back head, and on page 13 the back view shows great breadth of the head in the region of the animal propensities and the chief defect's appear to be in the moral and intel-

lectual regions. Comparing these two views of Fig. 3 with the face of Webster, Figs. 1 to 5, in which the intellectual and moral elements are strong, and the propensities, as compared with the malefactor, Fig. 3, are weak, we have a startling contrast.

Fig. 92 is a magnificent specimen of vigorous intellectuality. Fig. 93 shows a wonderful forehead and great power of intellect. Fig. 94 represents one of the grandest men this nation has ever raised, and Caleb Cushing, Fig. 111, shows a magnificent anterior or intellectual development, a vertical face and a vertical forehead. Fig. 114, Roscoe Conkling, was a man of intellectual capability. In Fig. 116 we find a masterful intellect and a magnificent imagination, all serving to illustrate the pre-eminence of the new facial angle. Fig. 136 speaks for itself, and in Fig. 177, Prof. Charles E. West, the model teacher, are the elements of thought, morality and affection. Lord Colchester, Fig. 178, evinces anterior development and moral power in a signal degree. Fig. 181, Dr. Nott, one of the brightest and most comprehensive intellects of his time. Fig. 185, Francis Egerton, Duke of Bridgewater, had a strong physique, practical intellect, but not much depth or strength of mind. In Brother Jonathan, Fig. 186, we have a specimen of a revolutionary father with a forehead that is majestic and masterful. Fig. 187 represents Albert Galatin; the anterior lobes of the brain are voluminous and show remarkable capability and especially financial talent. Among later men we find in Fig. 311, Wm. M. Evarts, with a long and massive frontal brain hanging heavily beyond the eyes and the face, the result of culture and intellectual force. In Fig. 313 we have that magnificent orator and scholar, Rev. Richard S. Storrs, D.D., who is still a living ornament of his profession in the city of Brooklyn, which rejoices to claim him as her own.

CHAPTER VII.

TEMPERAMENT; ITS NATURE AND INFLUENCE ON CHARACTER.

THE old and familiar doctrine or statement that "size is a measure of power, other conditions being equal," must be stated and insisted upon in regard to the brain, and also in regard to every organic function of the body. This principle that size measures power, if the qualities and conditions are the same, is applicable to every kind of matter. To study temperament is to learn quality and power. When the chemist understands the ingredients of a specimen of gunpowder, the amount to be used for a charge in a gun for a given distance or penetration is regulated according to the composition of the fulminate. One kind of powder may be twice as strong as another, and therefore but half the quantity would be required for the same result. The same principle is applicable to every other material. This is distinctly shown is respect to timber. *Lignum vitæ* is very dense; there is a great deal of ligneous matter in a given cubic inch of that wood. *Ebony* is compact, solid and heavy, but not so dense or heavy as the first named; then there is *boxwood*, another very fine and snug-grained timber. When we come to the ordinary kinds of wood, such as are used for the economic purposes of life, we reach *hickory* and *oak*, and extending our search we have the porous *chestnut*, the soft *willow* and *bass*, and, last, the *palmetto*, the coarsest and most spongy of all. *Pine wood* answers very well for certain purposes, but it would make a poor handle for a hammer, an axe or an excavator's pick. The different kinds of timber represent temperament, and temperament means the combination of parts

or qualities; and applying this doctrine of size a measure of power to textile fabrics in every variety, from fiddle-strings to crochet worsted, we have from the coarse sackcloth all the way up to the finest satin, and then we have the same grades respecting leather; we have the kid, the cowhide, and lastly the hide of the rhinoceros and the elephant.

When we come to sentient, organic life, everybody understands that there is a difference between the make-up of a Game chicken and of a *Cochin* or *Brahma*; the latter is a great, clumsy, awkward bird, slow in motion as well as in thought; he will weigh perhaps thirteen pounds, and a game chicken that weighs only five pounds will beat him out of record, and conquer him in battle in short order; but when we compare *Brahma* with *Brahma* and game chicken with game chicken, the conditions being equal, then size is the absolute measure of their power. When we compare bristles with bristles and fur with fur, we understand it; we can compare the coarse, the middling and the fine, and things are valuable according to the grade of quality. Grindstones, building stones and precious stones are judged by the same law. The same is true of human temperament, which means the relative proportion of qualities or conditions which make up a constitution.

Few persons are to be found who are exactly alike in their inheritance of the necessary constitutional elements of bone and muscle, of the nutritive or vital organs, and of nerve power, or of the circumstances of their birth and life, so that there are almost as many temperaments, or

grades of temperaments, as there are persons; each one has some modification or a temperament of his own. Occasionally we find men in respect to whom the temperament would seem the same, and they can be matched as to strength and speed as we match horses of similar constitution and size.

As we understand temperament and employ the term in studying and describing character, we recognize three temperaments or temperamental conditions. The elements of these temperaments are derived from different systems of organs. There are three systems of organs or factors in each human being, and in each animal that is highly organized.

First, there is the frame of bone and muscle, united by tendons, and these act like ropes and pulleys applied to levers; the jointed, bony frame united by the muscles and tendons make up the organic framework of the constitution, and it is called

1st. THE MOTIVE TEMPERAMENT,

or the temperament of motion. Some have called it the locomotive or self-moving temperament. It is not difficult for a person to understand that the bones and the muscles, thus nicely united, constitute the temperament of motion. Half a century ago it was generally called the bilious temperament, and by many persons of the present day, the old name "Bilious," is still used. In talking about this temperament we say the Motive or Bilious temperament, so that people shall know that the Motive and the Bilious are the same, and they will not be confused. The bones and the muscles act in harmony and in connection with each other, hence all form a distinctive part of the human economy.

2d. THE VITAL TEMPERAMENT.

The second temperament is called Vital; it was formerly called the Sanguine temperament; and another temperamental condition or system of the

organism was called the Lymphatic temperament, but since the latter also ministers to nutrition, that is properly considered a part of the Vital temperament. The Vital temperament embraces the blood vessels, or the arteries and the venous system, and we include also the lymphatic system, which carries a nutritive fluid without the color of blood, that circulates freely through the system. The lungs, heart, and digestive apparatus, including stomach, liver, spleen and lymphatic vessels constitute the vital temperament, and its office is to manufacture and distribute nutrition to all parts of the system, and take up waste material and carry it off, thus keeping the system in health.

3d. THE MENTAL TEMPERAMENT.

The third temperament is called the Mental; it has been called the Nervous, and in early time the Melancholic; it has also recently been called the Encephalic. The brain and nervous system constitute this temperament. The brain is the common centre of the physical system, and the nerves of motion and the nerves of sensation are the agents by means of which the mind, which is related to and acts through the brain, acquires knowledge of external things, and by means of which, also, the mind sends out mandates of purpose and power, through the nerves of motion, employing the muscles and the bones to execute and accomplish the desired purposes.

These several temperaments we will consider separately, and afterward in their combinations and gradations. In point of fact every living animal must have a nervous system, or Mental apparatus; also, bone, or shell and muscle, representing the Motive temperament; every being also must have the Vital or nutritive apparatus, including the stomach, to make the blood, and the lungs, or their equivalent, to impart oxygen to the blood, and then the heart to cir-

culate the blood through the arteries, capillaries and veins, so that nutrition can go to every part of the system for its up-building. Waste matter also is taken up, absorbed and carried off by the Vital apparatus, the whole making up the elements of life, health and power.

The Nervous system, or Mental temperament, is the most important. Somebody has said "Mind is Life," and the brain is the instrument through which mind acts, and the nerves carry the influences of thought and purpose and wish and will to the extremities, and bring back knowledge from the outer world, by means of the nerves of sensation.

As these three great systems belong to each organic life or constitution, they are sometimes developed in complete harmony, but frequently the Motive or Bilious temperament predominates; sometimes the Vital, at other times the Mental, yet there is always something of each temperament in each individual, existing of course in different degrees of strength, so that the doctrine of temperament is the basis of investigation as to the composition of each individual presented for study. No single temperament makes perfection. No one temperament constitutes the whole of manhood, but a combination of all the qualities and conditions of harmony give the ideal.

The subject of temperament is complex, but not insolvable. One may have 50 per cent. of the Motive, 30 per cent. of the Vital and 20 per cent. of the Mental; in others these combinations are reversed, or otherwise varied. We must study each person and learn by observation to detect the proportionate presence of each temperament, just as a painter does in mixing primary colors for desired shades.

1st. THE MOTIVE TEMPERAMENT.

We may say that the general appearance of the Motive temperament, where it greatly predominates,

shows us the heavy, strong and bony frame, plenty of development in the muscular system, with tenacity and endurance of muscular power; the bones are large, and the outline of the system is comparatively rough; the hair is usually dark, often hard and coarse, and the complexion dark or brunette. There are some persons with light or red hair who have coarseness of texture and hardness of fibre, and this light-complexioned Motive temperament is called the Xanthous: so we have light-complexioned people of the Motive temperament. Occasionally a man is found who has strength of body, large, strong, angular features, and who has hair of a strong, wiry character, which he gets by inheritance from a parent who has dark hair and skin; yet he will inherit the light and sandy color of the hair, and perhaps the light complexion of the skin, from the other parent. He will seem to inherit color from one and quality of fibre from the other. The figure is commonly tall, though we find some short, sturdy, dark-haired, dark-skinned, enduring men; but usually the Motive temperament shows tallness of the body and length of bone, especially length of limb; also long, bony fingers and feet; strong features, wide cheek bones, and usually a heavy, strong voice. People of this temperament are fond of substantial affairs; they like to do rough, heavy, manly business, and we have noticed in different trades and occupations that persons of the Motive temperament are from choice connected with hard and laborious pursuits; they like to lift and carry burdens, they like to wield heavy tools and implements, they enjoy striking heavy blows and in the construction of houses, they will lay the cellar walls and handle the heavy timbers. In New York there is a class of men who fulfill these duties in reference to house building; they go from one place or structure to another and are thus occupied all the time; then

others with this temperament pretty strongly marked but with a combination of the vital will do the brick work; that is not light, but it is not

and the implements of his trade are not heavy nor coarse, nor do they require a rough, bony, muscular hand; and men should classify themselves in the prosecution of different kinds of work and business according to the temperament which they have, and so adapt themselves to the nature of the business. The choice of occupation, therefore, and the assignment of different persons to pursuits, require that the nature of the work or business should be studied and adapted to the organic conditions of temperament and the mental peculiarities of the persons who are candidates for the work.

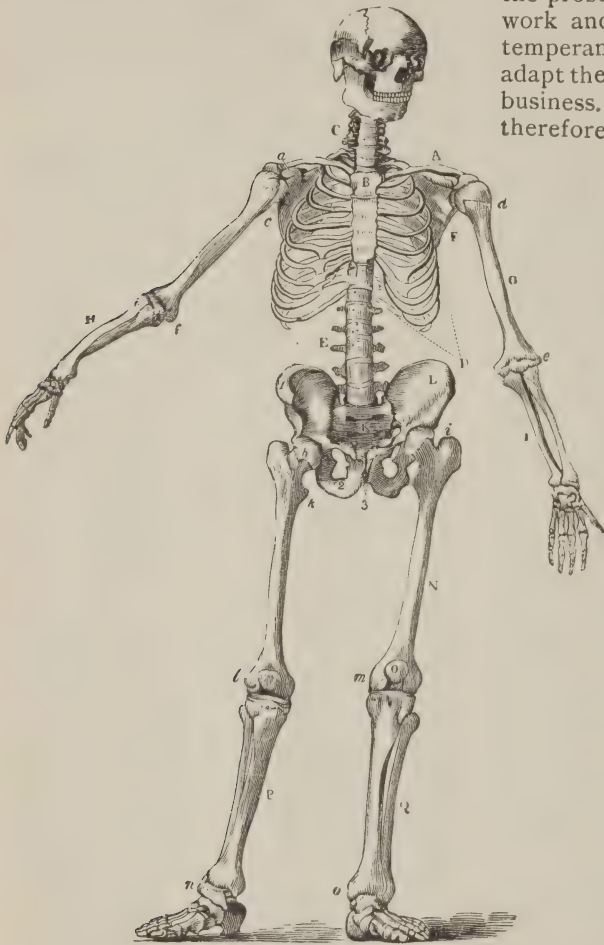


FIG. 61.—THE HUMAN SKELETON.

so heavy as the other—it requires quicker motions; then another class of men will follow the brick masons and do the inside work, which is called the “finishing” of the houses; then comes the painter and decorator; he has a finer temperament, and the quality of the mental and physical development is adapted to that which is artistical, elegant, and ornamental; he has more of the Vital and Mental temperaments; he uses a light brush,

are large on different parts of the skull and wherever on the skeleton the heavy, working muscles are attached.

Fig. 62. POSITION OF BONES IN THE BODY. Shows the position of bones as they are situated in the complete body, it being a back view. It is a contrast to Fig. 61, showing the bones by themselves; and the plump, well-rounded outline of the figure made of muscle and muscular connective tissue, with something of fatty tissue, make up the bulky develop-

ment of the body. The legs, the thighs, the arms and ribs are united by hundreds of muscles, which are generally attached to the heads of the bones, and by their action give to the system all the motions that are required for the varied duties of life. The human hand has been regarded as the most facile implement in the world; a horse's upper lip enables him to gather the standing grass



FIG. 62.—POSITION OF BONES IN THE BODY.

within reach of his teeth and to take up the feed which comes to him in any form; the tongue of the ox serves the same purpose, and while the thick lips of the ox are very immobile the tongue serves as a hand; the lips of the camel are large and loose, and

are employed by him as a hand to gather in food or whatever he wishes to take. The muscles which operate the tongue and the lips are related to the bony structure, and the nervous system imparts to the muscles their impetus to act, but the bony frame is the fulcrum; the solid ground on which the muscle is attached and the bony frame thereby becomes the basis of action. The most rapid manipulation of musical instruments by the fingers and the arms are performed through the legitimate mechanical adaptation and activity of the muscles and bones, acted upon by the nerves of motion, and when one watches the rapidity and accuracy of the motions of a distinguished pianist, he marvels at the wonderful possibilities exemplified in such artistic manipulation, and he concludes that the mechanical conditions and facilities of action in obedience to the law of human dexterity constitute the most marvelous facts in the whole economy of life. The sturdy steps of a horse and every motion of the pianist's fingers, and all other motions are under the law of organic action; and if one muscle, fiber or nerve becomes paralyzed it destroys the perfection of the muscular result; thus motion is governed and controlled by nerve, muscle and bone.

FIG. 63. MUSCLES EXPOSED.

This figure represents the muscles with the adipose matter dissected away, leaving the great muscular masses exposed to view. Of course this figure is not intended to be an exhaustive representation of the action of muscle and nerve; it is simply to show the massive agency through which the Motive or muscular temperament works out its results. It is not strange that so troublesome a disease as rheumatism, when it is located in the muscular structure should give intense pain and suffering to the unfortunate victim. This muscular system is subject to a

high degree of cultivation, not only in development, but in facility of action, and is of late years attracting more attention among men of leisure

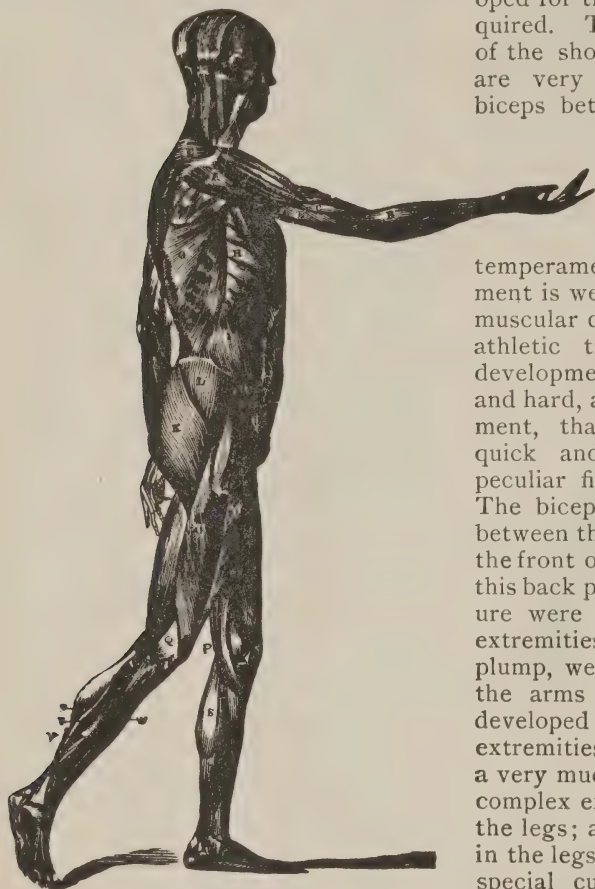


FIG. 63.—THE MUSCLES EXPOSED.

and learning than previously; hence some people think our colleges are making more of mere physical culture than is exactly required, but such matters are apt to regulate themselves and find the proper channels in which to work out their destiny.

FIG. 64. MUSCULAR CULTURE.

This is a back view of a student of one of our Universities, who is an athlete in boating. The photograph is taken with the muscles of the arms and the shoulders wrought up by the law of

the mind acting through muscle, and shows how the different muscles of the arms and back can be enlarged by exercise and hardened and developed for the duties and services required. The large deltoid muscles of the shoulders and the upper arm are very finely rounded, and the biceps between that muscle and the

lower arm is very finely cultured and shows in the figure. This does not show a figure of a heavily endowed Motive

temperament; the Mental temperament is well represented. The extra muscular development is induced by athletic training. Some forms of development make the muscles large and hard, and other kinds of development, that which has to do with quick and accurate motion, gives peculiar fibrousness to the muscles. The biceps muscle in the right arm between the elbow and the shoulder on the front of the arm does not show in this back picture as much as if the picture were a front view. The lower extremities of this figure seem large, plump, well-rounded and heavy, but the arms and shoulders have been developed differently from the lower extremities by being made to undergo a very much more positive, active and complex exercise than the muscles of the legs; and here we see largeness in the legs, but not so much a sign of special culture as in the arms and shoulders. The legs have the development which indicates sturdy strength; in other words, still strength, a condition in which the muscles are fixed, while the shoulders and the arms show the culture of the muscles in active working order.

Some years ago two gentlemen came into our office and requested me to give a description of one of them who was a stranger. I took hold of his right wrist with my right hand and grasped the biceps muscle with my left, and he clinched his hand and flexed his arm to develop the muscle, and I was astonished at the

peculiar liveliness and multiplicity of the muscular fibers,—they seemed to be like a bundle of whip cords, and I said, “What do you do with these muscles?” And he said, “Nothing.” And I said, “I should suppose if I were blindfolded and had hold of this arm that it belonged to the great violinist, Ole Bull. For I can think of nothing but the intense exercise required to work the violin which would give such a peculiar development to the muscles. When I got through with the examination I found out he was Ole Bull’s son, himself a great violinist. If he had been lifting timber and making coarse and clumsy use of the muscles, they would have been hard and solid instead of fibrous strings, all alive, and feeling like a bundle of worms or of snakes. Mr. J. J. Watson was the gentleman with him, and he, being an eminent violinist himself, wrote the matter up for publication, thinking it was very interesting. This temperament then is one of motion, power, endurance and executiveness; persons having it well developed, especially if it be well sustained by vitality and nutrition, will be hardy and well adapted to extended marches and long, weary days of work; they will carry heavy loads and wield heavy instruments, and so become masters of motion and strength; a man of this temperament, on an iron grey horse, well trained as a cavalry man, would make a charge and wield a sword with wonderful effect in battle.

FIG. 65. A GOOD MOTIVE TEMPERAMENT.

Fig. 65 has a strong predominance of the Motive temperament, which is shown by the large bony hands and the rough outline of the shoulders, legs and arms; they do not look plump; to be sure the coat sleeve pre-

vents the perfect outline, but it will be seen that the upper and lower extremities are lean and bony, and that the cheek bones stand up rather



FIG. 64.—MUSCULAR CULTURE.

roughly; the shoulders are square and the neck muscular; the forehead has a bony ridge over the eyes, and it is rather a tall head, and especially tall in the region of the crown, and is somewhat narrow above and about the ears, and if that man knew how to wield his fists in encounter, he would be quick and positive in motion and his blows would be heavy and effective. The hair, eyes and complexion

are dark; his head is long from the chin to the crown; the bones and skin are rather thick, and the whole make-up is enduring.

observation what kind of men can be most relied on for the accomplishment of such duties and service, and will select their men accordingly.



FIG. 65.—A GOOD MOTIVE TEMPERAMENT.

In the selection of men for laborious work, where heavy implements have to be wielded, and heavy weights carried and controlled, this type of temperament will furnish the best material for such work; and men who are engaged in railroad building, bridge building, or the handling of heavy timbers or stone, will learn by

Young men looking out into the open field of life, wondering what they would best endeavor to pursue as a life calling, if they lack the Motive Temperament they should not learn to be blacksmiths, stone cutters, or bridge builders; nor should they go into the heavy lumber business. A man without the excessive develop-

ment of the Motive Temperament can do heavy work, or make a successful muscular effort in emergency and excitement, but it wears on him.

A horse with this Motive Temperament, large bone and strong muscles, will take a heavy load, but he don't like to be pushed and be obliged to work quickly; and men who are wise in the management of horse flesh, will not allow a nervous, sensitive, thin, sprightly horse to be overloaded or placed in a condition where he will be obliged to use more muscular power than his constitution properly warrants.

FIG. 66.—ABRAHAM LINCOLN.

Abraham Lincoln is a good representative of predominant Motive temperament, but in an extended and careful analysis we would say Motive Mental; the Vital temperament was the lacking or delinquent one in his organization. He was six feet four inches high; his arms and legs were long, lank and bony; he had a long, strong neck; the bones were prominent; there was little but muscle, and that was made up of tenacious, hardy tissue. The tendons which connect the muscles with the extremities were large and ample, endowed for power; he was a man who could wield the ax; he was called a "rail splitter," because he was famous as a young man for his ability to work timber into that necessary form for fencing in the great, New West. In the border States, which were heavily timbered, the man who could use the ax in felling the forest and in making timber into rails or into cord wood, or preparing it for the saw-mill, or cutting it into lumber, was considered the head worker of the country. In the lumber camps every where the work requires muscle and bone, and the men are generally tall and high shouldered, they have also long arms and great, long fingered hands, but there is not a single pound of surplus flesh on them. Abraham Lincoln lived in

the forest-leveling days; he was in the glory of his laborious life about 1830, and in his Western forest home he was a great chopper, a powerful wrestler, and was a mighty man among men, but he had hardly an ounce of fat on his whole masterful frame; it was all bone, muscle, sinew and nerve. As he advanced in life he laid aside the ax, though he was proud to let any friend see he was a good chopper, even while he was President.

As he studied law and practiced it, and brought his mind into relation with mental topics, his Mental temperament was increased and it became more influential; but he never essentially modified his bony structure or the muscular development; of course, as he used the pen more and the ax less, the tensity and hardness and general power of the muscles abated, but a recurrence of the labor which developed it would have called back the former power, and with his added mental development would probably have given that power a better direction than it had in earlier time.

The features of Lincoln were bony and coarse because the bones and muscles were mainly manifested. There are men who have a good bony structure and also plenty of the Vital temperament, but the bony frame in such cases is clothed and covered with abundant flesh and adipose, while Lincoln had but little of the Vital temperament which gives one plumpness and smoothness. But the Mental temperament was manifested in him in various ways; whenever he was pleased and was surrounded by conditions that awakened in him the gentle and tender feelings, his face would lose its hardness, there would come over it a mildness that made his face particularly sunny, especially when he smiled. I have watched him for an hour sitting by his side, while he was listening to one of Henry Ward Beecher's discourses, and as Mr. Lin-

coln was intent in listening to the sermon I had opportunity to scan his face at my leisure. When a certain thought was being uttered by the speaker, anything that was brave and peculiar, his face would be knitted with intense interest, and as it culminated in a flash of wit, or in an outburst of benevolent enthusiasm, Lincoln's rugged face would glow like a burst of sunshine upon the mountain's brow. Again he would show an eager enthusiasm as if he were making a speech himself. This was in the Spring of 1860, before he was nominated for the Presidency. The strength of Lincoln's style of speaking and writing, and the compactness and earnestness which exist in his sentences are the result of mentality working out through the Motive temperament.

Mr. Calhoun had the Motive, Mental temperament, and his utterances were like the staccato expressions of the strings of a musical instrument, hard and intense rather than like the waving folds of a flag in the breeze, easy and graceful. Mr. Calhoun never joked, he never used a soft and mellow figure of speech; in his sentences he called things by their Saxon names, if they had one. We remember some of Mr. Calhoun's contemporaries: there were Webster, Lewis Cass, Silas Wright and Buchanan, men having an abundance of the Vital temperament, and there was pliability and mellowness in their lips, manners and methods, but Mr. Calhoun's voice was like the twanging of a guitar string, as if his thought and his voice came from a string tuned up to concert pitch, only it was not especially musical, there was no fun or persuasive playfulness in it, but directness, sincerity and intense earnestness.

Mr. Lincoln had a strong social nature; he had a keen sense of humor and wit, and his mind was sharply analytical, and therefore he could see in a story the culmination of a long argument. This was often illustrated

by him while he was President; a little story would settle a knotty controversy. A Virginia farmer, a man about as tall as himself and about as bony, came to him with a chronic grievance; the farmer had had about twenty or thirty acres of wheat trampled on and nearly spoiled, first by one army and then by the other, and as he was loyal to the United States he felt that the United States ought to pay him for the damage, and he frequently came to see Mr. Lincoln about it right in the midst of the war, when it seemed questionable as to what the result would be. This tall, lank man stood in his presence and Mr. Lincoln said: "Yes, I now remember, you are the Virginia farmer who wants to see me about that field of wheat. It reminds me of a story. When I was running a flat boat over the falls of the Ohio River at Louisville, and trying to work the stern oar so as to keep the boat off the rocks, we had some passengers on board, and among the rest was a woman and her little boy; presently I felt some one tugging at my coat tail, and there was the little boy, and he said to me, 'Mister, will you please to stop the boat. I have lost my apple overboard?'" The Virginian thought a moment and then said, "I see the point." And he bowed himself out and never troubled Mr. Lincoln again until the war was over. There was grim humor about that, but the humor and the absurdity were very much better than a sharp argument. General Jackson would have thundered at the man and told him to go back to his farm and defend his wheat, as he did in the case of the New Orleans merchant when Jackson used bales of cotton to make breastworks of them. The owner came out and said, "These cotton bales are mine; I must have compensation if they are to be used for the public good;" and General Jackson took a musket out of the hands of a soldier, and, handing it to him, said: "There, go into the ranks and defend it."

That shows the difference between Lincoln and Jackson in a similar case: Lincoln told a story and sent

in that way. Through all his administration he would tell a funny story, when a solid argument would

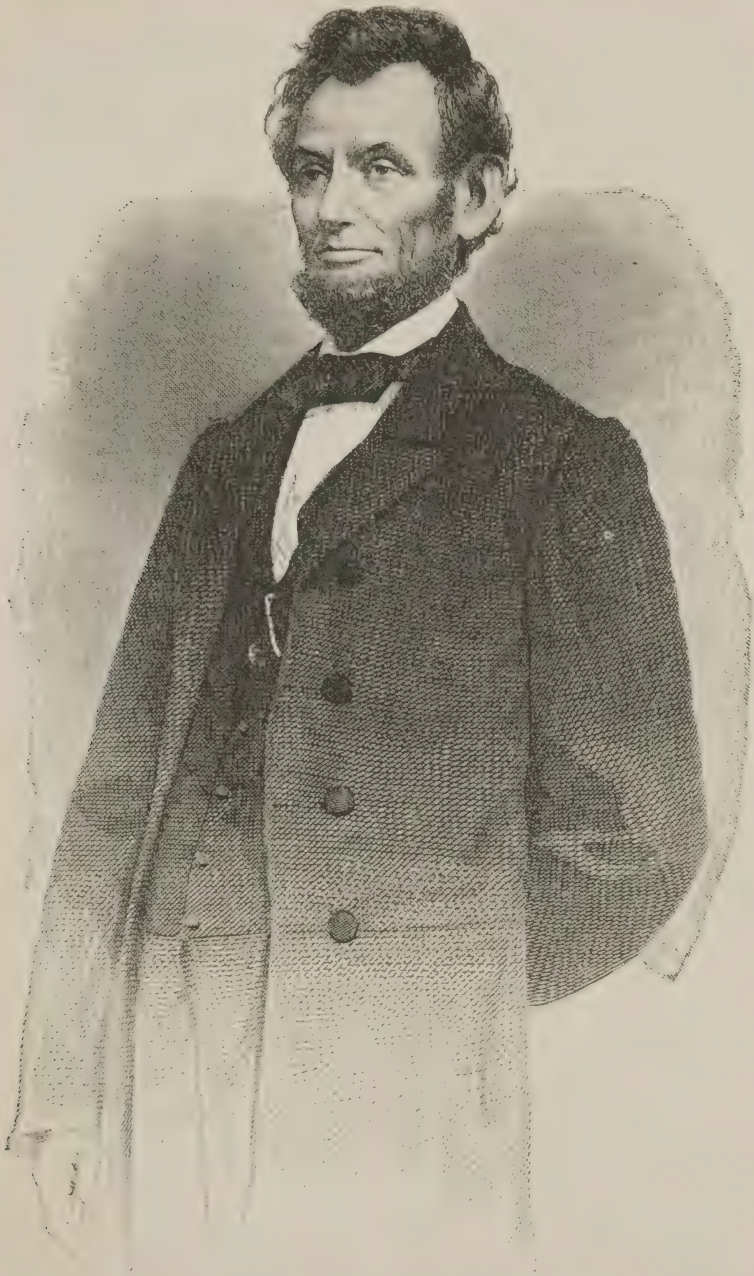


FIG. 66.—ABRAHAM LINCOLN.

the man off feeling cheap but good-natured, and so got rid of the trouble

be likely to provoke an angry rejoinder and perhaps enmity.

FIG. 67.—MISS MIDY MORGAN.

This very remarkable woman died June 1, 1892; she was born in Cork, Ireland, November, 22, 1828; her name was Maria—Midy was her nickname that the cattle men gave her. She was one of a large family of brothers and sisters. Her father was a man of considerable consequence and wealth. As a girl, she became fond of horses on her father's estate, she was a fine horsewoman, and obtained great reputation as a daring rider. She was over six feet high, had a large frame, but was thin as well as tall and lively and vigorous.

In her country she used to ride after the fox and hounds, and often led the chase among famous horsemen.

Her father died when she was a young woman, and left practically at the head of the family, she took general supervision of the farm, studied farming, cattle raising, and frequently visited the city markets. She raised cattle for the London markets, and also bred horses; and horses were her hobby.

The mother went to Italy with Midy and her sister, who was something of an artist. In Rome the young woman resumed her horseback riding, and it was a bold ride that she made one day which secured for her an introduction to the king, Victor Emanuel. He, learning of her fondness for and knowledge of horses, arranged with her to go to England and Ireland and purchase a stock of Irish Hunter mares for his private stable. She accomplished her mission, took six valuable mares from England, through France, over the Alps, to Italy. The commission had been so satisfactorily executed that the king presented her with a gold watch, on the case of which was his monogram in diamonds; he also gave to her a great diamond star.

After fulfilling the king's mission she established a Zoological Exchange, and purchased and exchanged wild

animals for the various zoological gardens in the old country.

Mr. Lawrence, the American consul at Florence, advised her to go to America. In 1869 she arrived with letters of introduction to Horace Greeley, Henry J. Raymond and Leonard Jerome. She applied for a position as a writer on the New York *Times*. Mr. Raymond having died just before she reached America, Mr. Bigelow became editor. He listened to her pleasantly, then remarked, "that there is not a vacant place on the staff, except that of cattle and live stock reporter."

"Well, I can fill that," she said.

He laughed and told her she might try; and she so thoroughly filled the position that she commanded the respect of all the cattlemen and reporters, and was employed on the *Times* in that capacity for twenty-seven years. She suggested improvements in the treatment of cattle, and her writings fairly forced a reform in these matters. She wrote editorials for the *Tribune*, *Rural New Yorker*, *Turf Field and Farm*, *Hearth and Home*, *Horseman*, *Breeders' Gazette*, and other papers. Her acquaintance grew large and valuable; her opinions came to be looked up to; she received invitations to lecture; she made an address before the Legislature at Albany; went to Washington by invitation of the President and gave him her views on "cattle transportation." She indulged her passion for horses on all occasions and permitted no opportunity to go by to see the best horses in the land. She became acquainted with such men as Robert Bonner and Cornelius Vanderbilt, and was elected member of the "American Jockey Club." She built a singular house on Staten Island that was thoroughly fireproof, of stone and iron, as her home, and was proud of it. She was a big-hearted woman and was always ready to help any one in distress. She loved all forms of animal life, and probably had more animals, of every sort, named after

her than any woman living. It is thought she left a comfortable fortune. She was a well-known figure about "Printing House Square"

strong but regular, and her head high, and she carried herself with that spirit of steadfastness and independence that attracted attention;



FIG. 67.—MISS MIDY MORGAN.

and at the cattle market. She wore the regular boot, and, she being above most men in height, walking with a long stride, she attracted attention; but her amiable face, her intelligent expression and her pertinent words, full of wit and geniality, won the respect of all who met her. Being six feet high, and endowed with an ample amount of bone and muscle, she was a good representative of the Motive Temperament. Her features were large and

and her voice was pleasant, her eye invited confidence, her words were magnetic, and her presence was always commanding.

We cordially cherish the thought and the memory of her presence and words for the last quarter of a century. If she had been more endowed with the Vital Temperament she would have been more plump, and therefore would have been very massive as well as stately.

Fig. 68 is taken from life by photograph of a boy 17 years old. He had not been employed at hard work,

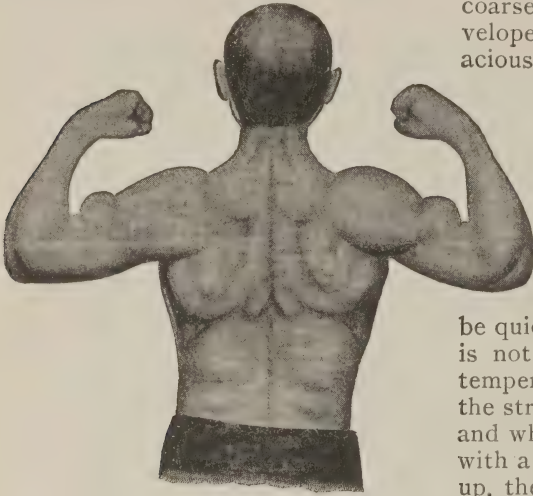


FIG. 68.—MASTER TRYON.

but he was an athlete among the boys, and he would wrestle, tussle and jump and run and play ball. His parents were endowed with abundant muscle, and the mother was tall, strong and muscular, and had a good Vital temperament added to the Motive; her Motive temperament stood in relation to the Vital about as sixty to forty. This boy, therefore, inherited a magnificent Motive temperament with a full degree of the Vital; he was well nourished by the Vital temperament, consequently the bones are well grown and the muscles are ample and plump. The picture thus taken from photograph shows the different pairs of muscles on the back, on the arms and on the neck, and if he could have a thorough mental training to develop mind as well as body, he might be a man of notable brain power as well as of brawn.

In daily life there is a tendency for those less endowed with bone and muscle, and more of brain and nerve to become absorbed in study and brain work, and neglect bodily training—and those who are stalwart, take nearly all the exercise of body and less of brain work.

Fig. 69 represents a boy with a predominance of the Motive temperament. His hair is dark, strong and coarse; the bones are amply developed and his muscles are firm, tenacious and enduring without much of the Vital or Mental temperament to smooth, soften and refine his make-up; he will make a man adapted to earnest business, requiring more or less labor and physical exertion and endurance, manifesting a firm spirit and quiet, hardy courage; he will not be quick, flashy and impetuous; there is not kindling wood enough in his temperament to set him off quickly in the strifes and controversies of life, and when he becomes fairly imbued with a subject and his mind is made up, then positiveness will express as much as any word can of what belongs to his character. A girl with



FIG. 69.—BOY, MOTIVE TEMPERAMENT.

this temperament will be an energetic thinker and worker with positiveness and endurance, and be worth a dozen soft handed, pliable specimens of grace and beauty.

CHAPTER VIII.

2d. THE VITAL TEMPERAMENT.

THE organs and functions which make up this temperament are called the nutritive system; they minister to the nourishment, feeding and up-building of the whole constitution, and take in the entire digestive system, beginning with the mouth, and including the stomach, the intestines, and the messentary system which absorbs the nutritive material and carries it up through the thoracic duct into the sub-clavian vein and thence into the heart. This fluid is a whitish, milky substance called chyle, and when it passes from the heart into the lungs and comes in contact with oxygen, it thereby becomes of a scarlet color and is called blood. The digestive apparatus may be supposed to end where the thoracic duct empties the digested food-material into the blood-current. The heart is the next organ of the vital apparatus which operates upon the fluid, sending it into the lungs, where it is charged with oxygen, and then bringing it into the other side of the heart, which by muscular contraction starts it into the system of blood vessels called arteries.

The heart, lungs, veins, stomach, and intestines are not represented in this engraving (Fig. 70); simply the arteries are shown. The office of these is to carry the blood to the extremities and into the minute hair-like capillaries, from which nutrition is absorbed by the hungry tissues; these capillaries are so numerous and so extended that every particle of the entire economy is pervaded by them; there are branches of these from the larger vessels all along on the way

to the extremities, which supply the intervening parts with arteriae blood, laden with nutrition, and then there is a system of veins (Fig. 71), which

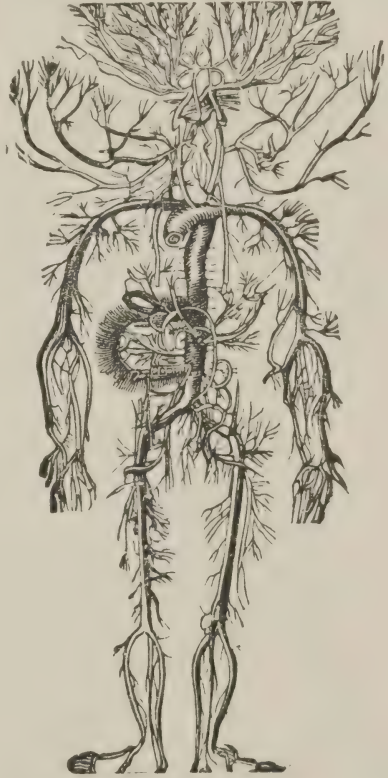


FIG. 70.—THE ARTERIAL SYSTEM.

returns the blood from all the points to which the arteries have carried it out; in fact, the arteries and the veins are united at their extremities. Each hair-like artery becomes a hair-like vein and returns the blood to the

heart to be sent again through the lungs to be revived, and then out through the arteries and back again through the veins. The arteries resemble the service pipes of the water works of a city, carrying the clean water to every house and every room, and then the veins, like the system of drain pipes in the houses, take up the blood, when it has done its work of nutrition and cleansing, and carries it into larger vessels and, like the system of sewerage, the veins bring back with the blood imperfections or impurities which it has in its journey taken up, and the blood is thus changed to a dark purple. In going through the liver the blood leaves some impurities, others are deposited in the kidneys, and some are excluded through the lungs and the skin; so the arteries carry out nutrition, and the veins bring back the blood that has become exhausted of its vitality, and has taken up impurities and the waste material of the system; and this process of carrying out and bringing back blood keeps up the current of life and vitality, and tends not only to nourish but to purify the whole system or constitution. This process of house cleaning and refitting which is performed by the blood is sharply illustrated by the house maid with her pail of clean water, scrubbing brush, pearline and wiping cloth, who loosens the dirt by the brush and pearline, wipes it up with the cloth and empties the accumulation into two sinks, called liver and kidneys, and so leaves the premises cleaned and sweetened, as the house is by removal of smoke, dirt and grease and the application of a coat of fresh paint and whitewash. A dwelling has a general cleaning once in six months, a partial cleaning once a week, and a daily tidy touch; but the "House Beautiful" in which mind lives has the cleansing process going on all the time. The scrubbing, wiping, rinsing process never ceases, or when it becomes lax the condition called disease occurs, threatening

decay and death. Proper food and hygienic conditions will make new blood of the right sort, and then if not polluted by bad habits, the normal action of life's functions will keep the system in happy, healthy working condition to ripe old age. Early death is the result of human error in some form; it is premature, and is a penalty of violated law, ignorantly or otherwise.

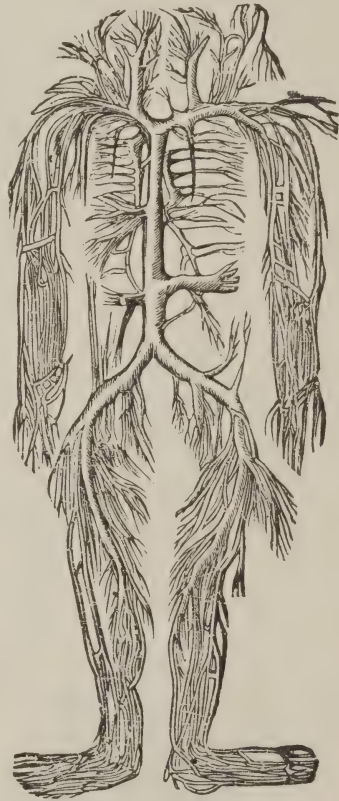


FIG. 71.—THE VEINOUS SYSTEM.

So completely does the system of blood vessels pervade the entire constitution, for purposes of up-building and cleansing, that there is not a place as large as a needle's point on the whole surface of the body which will not bleed if we prick it with a needle, showing that there is a blood vessel there. Now if everything else about

the body could be disposed of, leaving the blood vessel system intact, we should have before us, if the arteries and the veins were filled with blood as in daily life, a complete man, formed like the living man; even the skin is pervaded by blood vessels except the outer cuticle; so that the blood vessels would constitute a man of a blood-red color, and shaped exactly and in every feature like the man in life and of the same size within less than the thickness of a sheet of paper; thus, the blood vessels are found everywhere, carrying nutrition and bringing back impurities to be disposed of through their proper channels. Thus once in five minutes all the blood in the body, twelve or thirteen pounds, passes through the heart and visits all the extreme points.

We have in a previous chapter shown a man of bone and muscle. (Fig 62.) We now show two engravings which represent imperfectly the blood vessels, the arteries and the veins, (Figs. 70 and 71), which if complete would be shaped exactly like a man of bone and muscle, just as large, and showing the entire outline of organs made up of the blood vessels.

THE LYMPHATIC SYSTEM.

We show another man in Fig. 72 made up of the lymphatic system, somewhat similar to the arterial and venous systems, and these are small, delicate vessels and of whitish color, and carry, not the red blood of the arteries nor the purple blood of the veins, but the white fluid of the lymphatic system. The largest only of these lymph vessels are represented in Fig. 72, and they, like the arteries, enter in microscopic minutia into every organ of the body, and have an important part to perform in the great function of nutrition. This lymphatic system, instead of being a temperament by itself, properly belongs to the nutritive system. The digestive system makes the nutrition;

the arteries, veins and lymphatics distribute this nutrition, and the result is the up-building of the body; hence the temperament represented by all the vitality-making organs is called



FIG. 72.—THE LYMPHATIC SYSTEM.

the Vital temperament because it is the source of all vitality. The bones themselves are fed by this nutritive system called the Vital temperament; the muscles are built up by it, the nerves are built up by it, and even the veins and the arteries themselves are nourished and replenished with new

material of nutrition which they help to manufacture and absorb as health and the system require, so that everything that belongs to a man's constitution comes through the Vital temperament which is made up of the factors which we denominate the vital organs.

This temperament used to be divided; one part was called the Sanguine temperament, but in that case they regarded only the heart, lungs and arteries as constituting the Sanguine temperament; they left the digestive and lymphatic systems out of the question, and called this part of the nutritive system the Lymphatic temperament. Thus they cut the blood-making and blood-distributing systems apart, calling them by two names as two temperaments. In Mr. Combe's time it was customary for lecturers—and Mr. Combe did it himself—to ridicule the unfortunate people who had a superabundance of the digestive system. The Lymphatic temperament was a source of joke and merriment, and nobody wanted to be charged with having that temperament. In fact, that which they called the Lymphatic temperament was a partial disease; it was an unbalanced condition in which there was more nutrition generated than was assimilated and worked into complete life power, and thus, a man would become extra fat and heavy by an extra amount of lymph being induced. It was like pulling a lamp-wick too high, which gives imperfect combustion, and fills the room with smoke.

The Vital temperament includes the three systems illustrated by Figs. 70, 71 and 72, and also the organs which convert food into blood, which being combined, constitute the digestive apparatus (Fig. 73). This shows A, the heart; B B, the lungs; C, the liver; D, the stomach; E, spleen; f f f, intestines; m m, kidneys; g, bladder. All these organs are engaged in the processes of preparing food for nutrition and cleansing the tissues and blood of the impurities

and waste material which need to be carried out of the system. This temperament is distinct from the Motor or mechanical system, and also from the nervous system, yet both of these systems render indispensable aid in carrying on the processes of diges-

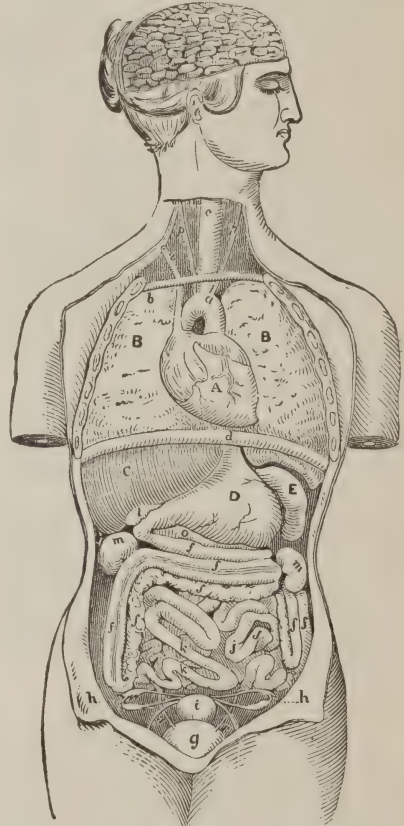


FIG. 73. THE DIGESTIVE APPARATUS.

tion, from the chewing of the food all through the various processes of making healthy tissue and life power.

In the early history of Phrenology in this country it was found by lecturers that there was a great misunderstanding on the part of the people in regard to the nature of the temperaments. Since my public career of Phrenology commenced in 1839, I frequently had this experience before an audience. I used the names of the temperaments as Mr. Combe always

did, recognizing four temperaments, named Sanguine, Nervous, Bilious and Lymphatic, and I would say of a man before an audience, "This man has the Sanguine temperament." And the man, thinking I meant that he was happy and cheerful, would contradict, and plainly say that it was not so; that he was not sanguine, but inclined to look on the dark side, and then I would explain that it was not disposition I was talking about, but temperamental constitution; then another would come up for an examination who was of the Motive temperament, and as we called that Bilious, I would say "He has a strong Bilious temperament." And many times I would be contradicted on the spot, and the man would say "You are all wrong there; I haven't had a bilious attack for six years." The people thought the Bilious temperament meant a diseased condition of the liver and the bowels, and that the Sanguine temperament meant that a man had a cheerful and enthusiastic spirit. When we found a man who had the Mental temperament strongly marked we would say: "You have a predominance of the Nervous temperament." And often a man would reply: "You are mistaken, I am not nervous at all; in fact, the doctor always sends for me to assist him in surgical operations, because I am calm and never nervous." The Messrs. Fowler, coming in conflict, as they often did, with this error on the part of the public, were led to study the nature of the lymphatic system, dropped the term Lymphatic as applied to a temperament, and merged it into and as a part of the nutritive system, calling the combination the Vital temperament because both systems minister to vitality. Some still use the term Bilious for the Motive temperament, thus rendering themselves liable to be misunderstood. At all events the term Motive applies to the bones and the muscles, their functions mean motion; and vitality is the re-

sult of digestion, circulation and assimilation; hence Vital is the true name for the nutritive functions.

The characteristics of the Vital temperament are vital warmth, a steady and vigorous pulse, abundant and complete digestion, good circulation and assimilation, and therefore a tendency to plumpness of figure, a ruddy complexion and ardor in feeling, and ready recuperation for life's work. People who have the Vital temperament in excess are generally inclined to be fat, and as they become advanced in years are liable to get heavy and too stout, although they are not necessarily lazy, even if they are heavy. There are some such people who, though too stout, too much laden with adipose tissue, are yet earnest workers and great drivers; they have strength generated by good digestion; they have an abundance of healthy blood freely distributed through all parts of the system, giving life and vitality, and so they are cheerful, zealous and hearty. Many persons of this temperament have too full a development in the region of the stomach for their comfort. They have also a broad and deep chest; they have well rounded limbs and full, plump and thick hands. The complexion is often florid, the eyes blue or gray, the hair light or sandy, the cheeks red and the skin a peachy white, with abundant perspiration. We are speaking now of persons in which this temperament predominates, even as extra bone and muscle come from a predominance of the Motive temperament.

Lincoln, Calhoun and Jackson, having the Motive temperament, were slim, tall and bony; Lewis Cass, Silas Wright, Levi Woodbury and James Buchanan were rounded, heavy and plump, full of blood and had the Vital temperament; others, like John Randolph and Henry A. Wise, were thin, nervous, sensitive and excitable, had light bones and muscles and delicate features. These had the Mental temperament in predominance.

FIG. 74—THE MARQUIS OF SALISBURY.

In this portrait of Lord Salisbury we have an excellent illustration of the Vital temperament. The great size

ishment, giving ability to manifest breadth of thought and capacity for great affairs, such as a prime minister requires. In conjunction with the

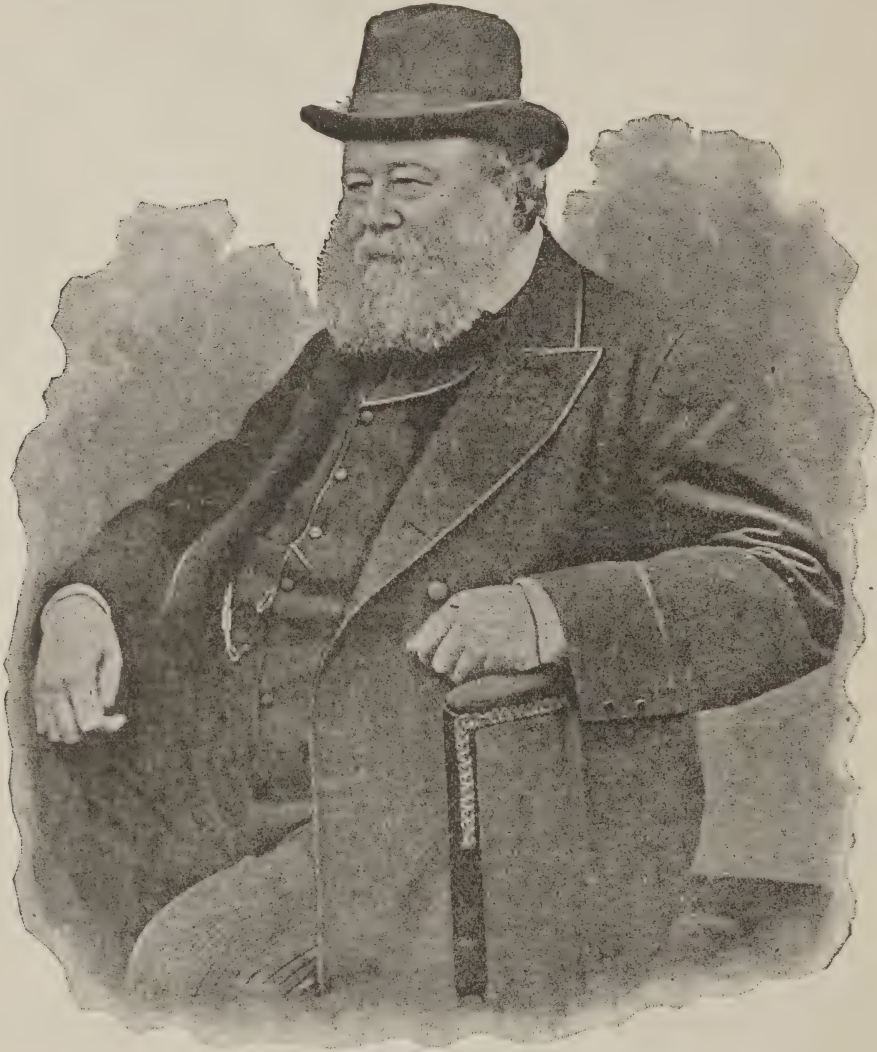


FIG. 74.—MARQUIS OF SALISBURY—THE VITAL TEMPERAMENT.

of the chest, the fullness of the entire person, the large and healthy looking face, the stout limbs, plump hands and the well nourished appearance of the whole system, show ample digestion and nutrition, abundance of blood and a free circulation. His large brain is well supplied with nour-

ample vital power, he had with his large brain also a full share of the Mental temperament which gives him clearness of thought, and with his great vital endurance, the ability to think clearly and acutely, and bear the fatigues incident to his long and eminent public career.

FIG. 75—AMELIA E. BARR.
VITAL TEMPERAMENT.

The portrait of this lady indicates a decided predominance of the Vital temperament. In the appearance of that face, neck and shoulders there is evidence of excellent nutrition, fullness of life power, abundance of blood and of healthy tissue. It will be noticed that the features are not angular, massive or rugged, but pliable, mobile and expressive. The cheek is plump outward from the nose, also full outward from the mouth, and the fullness and plumpness of the neck below the chin indicating a person who is well nourished, whose digestion is excellent and whose enjoyment of life is ample. The forehead is developed in the lower and middle sections rather than in the upper part; there is more tendency to gather knowledge, remember it, rehearse it, or reform it, according to her own impressions, than a tendency to follow a line of strict, logical reasoning; she translates her thoughts into feelings and clothes her ideas with sentiment and emotional life. The back-head seems to be amply developed, indicative of the temperament in question, and also for great sociability, and especially the love for children. Her intellect is that of a writer, and her temperament and motherly spirit have made her an eminent writer for children.

Every function rejoices in abounding activity; the affections are strong and responsive; the thoughts quick, the emotions genial and smooth, making her a sympathetic centre wherever she may roam or rest.

Fig. 76. This boy is a good illustration of the Vital temperament;—the fullness of the cheeks outward from the nose and outward from the mouth show breathing power and digestion, and the fullness and strength of the chin indicates good circulation. The quality of constitution, fibre and disposition are a good contrast to Fig. 69, and rightly trained he will make

a man of vigor and abundant vital power, and he will manifest also har-



Amelia E. Barr.

mony of character, and most decided brilliancy and vigor of intellect.



FIG. 76.—VITAL TEMPERAMENT.
FROM A PHOTOGRAPH BY ROCKWOOD.

FIG. 77—MR. R———.

This gentleman, who came to us in the ordinary way of business, kindly consented, at our request, to have his picture taken for publication. He is a good specimen of the Vital temperament; his weight is 245 pounds.



FIG. 77—MR. R—VITAL TEMPERAMENT.

The relatively small and delicate features, as compared with the size of the body, the fullness of the perceptive organs, and the largeness of his back-head, which, however, does not appear in the engraving, all show the Vital temperament, and also a strong resemblance to the mother, and from her he derives the comparatively narrow shoulders. His arms are very large at the shoulders and taper off, showing a comparatively small wrist and hand, and for a man standing five feet ten inches high his arms are short. The reader will observe the broadness of the hips and the largeness of the thighs and the fullness of the abdominal region; he had

a large digestive apparatus and made an abundance of blood, and he is strong, earnest and active for a heavy man; his feet are small, and we found by measurement that the



FIG. 78—MASTER H. T.

thigh measured twenty-seven inches; we rarely find an organization to show a finer nutritive and digestive apparatus, and the ability to convert food into life-power more readily and abundantly. Then his head is large, and he can make steam as fast as he needs to use it. From the knee to the waist it will be seen how ample the development is, and that indicates largely where he got the last forty-five pounds.

FIG. 78 H. T.—VITAL TEMPERAMENT.

Shows a boy thirteen years of age. He is heavy in the region of the waist and below it, his legs are large and taper rapidly, his hand is deli-

cate, and his features are also delicate, contrasting sharply with Fig. 69. The chest is full, but not prominent, and below the waist he is full, well rounded and stout. He weighed 135 pounds, and that is a heavy weight for a boy thirteen years old.

BALANCE OF TEMPERAMENT.

Some are evenly balanced in temperament. Washington was supposed to be evenly balanced. We think Chauncey M. Depew has a pretty fair representation of the three temperaments. General Lee was well represented in all the temperaments. Mr. Beecher had a fair balance, with perhaps a little surplus of the Vital, which made him stout in his later years. Rev. Dr. R. S. Storrs is a good specimen of Harmonious temperament, as his portrait elsewhere represents. His head is large, his face plump and full and his body was just full enough to be grand at sixty years of age. Rev. Dr. Cuyler is thin and wiry; the Motive Mental temperament prevails in him, and the Mental Motive is more conspicuous in Mr. Talmage, though his complexion favors the Vital.

In the examination of persons in respect to character, constitution and temperament, it is comparatively easy to recognize the Motive temperament in the large bones, strong hair, in the dark complexion and in the fullness and hardness of the muscles. The Vital temperament generally has depth of chest and a good development of the shoulders and a rounded fullness of the abdominal region (see Figs. 74, 75, 76, 77, 78), with ample fullness and largeness of the limbs and plumpness of the face and hands. There is, however, a special method of estimating the development and healthy condition of the lungs and of the digestive system and also of the circulatory system by the form of the face of the person.

THE BREATHING POWER.

A large and healthy condition of the lungs will generally be found with

a strong development of the malar bones, or a frontal prominence and width of the cheek bones outward from the nose, and if there is an abundance of good, healthy flesh on every part of these bones we expect to find large and vigorous lungs, and where that section of the face is broad and strong, we generally find a large chest, capacious and healthy lungs. No matter if the man is tall and slim, if that part of the face is well filled out he will have a good development of the lungs, though there may not be an ounce of fat on him, and, like the large-chested, slim-built greyhound, he breathes deeply and abundantly and he is not short-winded. When consumption or any diseased condition of the lungs invades the system, it produces a feverish expression of the face outward from the nose, the hectic flush, as it is called, appears thereon, and as the disease advances that part of the face becomes wan and pale and thin, the cheek bones show plainly and the eyes look glassy, glaring and cavernous. I have seen the late Dr. Dods, in magnetizing a person, put his fingers on that part of the face and nearly stop the man's breath; he would not say anything, but the man would soon pant for breath. Writers on magnetic and physiological subjects, some years ago, used to talk about the poles of the lungs being represented in the malar part of the face, and they also spoke about the poles of the stomach having relation to the middle side sections of the face outward from the mouth.

DIGESTIVE POWER.

Anybody can observe that those who have good digestion are apt to be plump in the cheek outward from the mouth, sometimes unpleasantly so. Young persons who have healthy digestion and good, wholesome food are fat and full in the cheeks.

It may not have escaped the observation of nearly every reader, especially mothers, that when a child is troubled in the Summer with a dis-

turbed condition of the digestive apparatus, he falls away in that spot; the middle of his face, called the cheek, gets hollow and thin, and that part looks pale; and when a person is nauseated he looks white about the mouth, and the part of the cheek that should be fresh or red, looks white. People have a contemptuous expression, "He looked white about the gills," when he was seasick or nauseated by the sight of blood or his stomach was "turned" by something else. Dr. J. B. Dods would place his fingers and thumb on the sides of the face at the poles of the stomach and the robust man would at once turn pale and become deathly sick at the stomach.

Now, to come back to the child, let him be cured of this Summer trouble, and in four or five days he seems to be as plump in the cheeks as he ever was, and no other part of his body has fallen away; his legs and arms seem as plump as before, but during his short sickness his cheeks fall in, and as soon as the stomach trouble is ended his cheeks fill out again and he is healthy and happy as ever. His loss of flesh was chiefly on the cheek. People are often astonished when we charge them with being troubled with dyspepsia; they confess the fact, but wonder how we know it, but it will be readily shown in a thousand photographs that might be presented; so this sign of poor digestion is manifest and easily discerned.

THE CIRCULATION,

or the strength and activity of the heart and the integrity of the circulatory system, are indicated by the fullness, length, breadth and strength of the chin, and to use the old phrase, the poles of the heart are represented in the chin. I think a Phrenologist would recognize, in looking over the faces of a thousand men in regimental line, every man who is especially liable to a disturbed action of the heart, as well as every one who was stern, staunch and

steady in that respect. The same, also, as to the breathing and digestive power. We sometimes say of a person under our hands, "Your circulation is perfect and strong, you are likely to hold on to life to a good old



Celia Thaxter.

FIG. 79—LARGE CHIN, HEART STRONG;
CHEEK FULL, DIGESTION GOOD.

age; if your stomach does not break down, your heart will do its work with steady vigor and strength until all the other functions of the system are exhausted." And to another person we will say, "Your circulation is not naturally good and strong, therefore you should avoid the use of articles that are by their nature calculated to disturb the action of the heart, or the nerves which operate the heart."

Tobacco, coffee and spices induce a disturbed action of the heart, and I suppose that thousands of men and women have been benefited and saved by giving up those habits relating to the use of coffee, tobacco and spices through my professional advice, and there were some notable cases where the patients had a dis-

eased condition of the heart or of its functions, and afterwards perfectly recovered from the trouble by avoiding those articles which it was supposed produced the disturbance. More than fifty years ago I had an attack of disturbed action of the heart and I sent for a physician in the middle of the night, and when he came and felt of the pulse and studied the action of the heart, he said: "Do you use coffee?" "Yes," I said. "You had better stop it," he replied. "Do you use tobacco?" "Yes," I said. "You had better stop that, too, for if you do not, your heart will stop some time and you cannot start it again." I dropped coffee and tobacco, and I have had no trouble with the heart for half a century.

It may be said within the field of safety that three-fourths of the people who die suddenly of heart trouble, or heart failure, to use the popular term, will be found to have been habitual users of coffee, spices or tobacco, and sometimes of all three.

On the 31st of January, 1891, the Secretary of the Treasury, Mr. Windom, as will be remembered by not a few people, died at the close of a great speech he had made before the New York Chamber of Commerce. Of course it was an exciting position, but he had been Senator, and was not afraid of the presence of men of calibre and knowledge, and, being an excellent financier, he was looked up to by the distinguished company he was addressing, which well knew how to appreciate him. He went through the speech grandly, but before the applause was ended which followed his last sentence he fell prostrate with heart failure, and the newspapers innocently said that "he had taken a cigar out of his pocket ready to light and that it was in his fingers in death." He might have lived twenty years longer and have continued his usefulness if he had avoided that habit, and seven years before his death I frequently predicted that he would probably die in that way, just

by looking at his photograph; and let any one look at his picture on the



FIG. 80—DIGESTION POOR, CHEEKS HOLLOW; CIRCULATION FAIR.



FIG. 81—D. G. MITCHEL, VITAL-TEMPERAMENT BALANCED. BREATHING, DIGESTION AND CIRCULATION GOOD.

national bank note! He was a magnificent looking man, but his chin was small, and his heart was the one weak part of his system. We have twenty millions of people, men and



FIG. 82—GEN. ABRAHAM DALLY,
AGE 93.

He was a soldier of the war of 1812. In 1880 he appeared in his uniform at the Centennial Celebration, and was seated with President Harrison on the grand stand at Madison Square, New York. His face shows the integrity of Breathing Power, Digestion and Circulation. Hence his long life.

boys, in this country who are smokers, and they are all candidates for such an end, and some will perhaps reach it before long; then the coffee drinkers and those who use spices heavily are liable to the same trouble.

A neighbor of mine had a bright little girl of nine years, and one day she had convulsions. A doctor was hastily sent for half a mile away, and

when he came he questioned the family as to what she had been eating, for he surmised that there was some trouble with the stomach, and he managed between times to get an emetic down her throat. She then threw up a large quantity of nutmeg. She had been to the nutmeg grater and eaten all the little ungrateable pieces, and so she had taken perhaps the value of an entire nutmeg, and when she threw it up the whole house was filled with its odor, and it covered the floor, looking like Indian meal. Then the doctor said: "Now she will be all right." And so she was.

A medical friend of mine had a patient, a young man who had recently gone as clerk into a village store where he could have opportunity to eat all the cinnamon and cloves he wanted. So he was nibbling at something of the sort all the time; but he soon began to have trouble with his heart and he went to the doctor, who, smelling the odor of spices, asked him whether he ever eat any, and he replied: "Oh, yes, I eat spices all the time." And the doctor told him that was the cause of his trouble, and advised him to quit their use entirely, and he soon got quite over the difficulty.

But there are some people who tell me they do not care, they like certain things, and they are going to enjoy life whether they live five instead of fifty years longer or not; but the use of these articles is founded not on a natural want but purely on habit. A man has an uneasy feeling, craves something, and indulges himself; then his system gets used to it, and his desire for it grows, and all these unnatural, artificial things, tobacco, alcohol, spices and coffee, have an evil effect on the nervous system. Animals generally by in-

stinct evade them. We learn gradually, little by little, to use them, until a habit is formed, which craves the accustomed indulgence,

Mrs. Garfield had a harmonious temperament, fine quality, and a good education. Her husband dying left her with four children, James A.,



FIG. 83—MRS. ELIZA GARFIELD, MOTHER OF THE PRESIDENT, AGED 80.

THE FACE CARRIES THE BEAUTY OF A HARMONIOUS VITAL TEMPERAMENT.

and we become its slaves. A systematic, gradual lessening of the amount used will enable any person to go out of the habit as he acquired it, and perfect freedom from the desire for it will be reached in a few months. The veriest slave of alcohol, tobacco, opium, arsenic, tea, coffee or spices, by lessening the amount used by a constant and systematic rule, will save his health and utterly conquer the habit and the acquired desire.

the future president being a babe. Her slim resources consisted of a log house and a farm in the forest half cleared. She had a hard time in raising and educating them. Her fine intellect planned well; her industry and economy made her the master of her condition. Her face was marked by the signs of Breathing, Digestion and Circulation, and was beautiful and winsome even in old age. Our pioneer, patriotic and pious mothers, "God bless them every one!"

CHAPTER IX.

THE MENTAL TEMPERAMENT.

THE brain and nervous system constitute the important apparatus which we call the Mental Temperament. It is the centre and master of all the structures which make up the bodily organism. Everything else is the servant of this. The genial, hard-working butcher, who, in plying his trade, has cut up droves of oxen, sheep and swine, if questioned on the subject of the nervous system, would remember that in the cranium of his victims there is a conglomerate mass called "brains," and when he splits with his clumsy cleaver the spine of an animal he has seen a white substance in its long cavity, which he calls the "pith of the backbone." To him it is meaningless, and while he hews his way through the quivering flesh, severing myriads of once conscious nerve filaments, if he should chance to discover a large branch nerve he would regard it as merely a "string," precisely as he would a portion of the cellular tissue which lies between the layers of muscle, and with as little knowledge of its use.

It is only the eye of the anatomist which detects the more considerable nervous fibres and requires careful attention and sharp analysis to trace them on their way towards their infinite divisibility. These filaments, moreover, cannot be recognized in their last analysis without the most powerful microscope. In fact it requires something more subtle than microscopic power, faith and experiment even, to appreciate how infinitely extended and minute the

nerve fibres really are in the human system.

It is not a stretch of fancy, it is no flight of the imagination, to say that if all the parts of the human body, except the nerves, could be removed, and these should occupy the same positions precisely that they now do, the man would stand forth in full size and ample proportion, though probably he would not weigh ten pounds. The eye could not penetrate between the fibres.

We know that the finest point cannot be brought in contact with the surface of the human system without producing sensation—without hitting a nerve; if, then, there is a fibre of nerve at every point of the human surface which the sting of a bee cannot fail to touch, not to say the clumsy point of a cambric needle, it shows that the nerves have been divided till they so completely fill all the space constituting the bodily surface, that nothing visible to the naked eye separates the nervous filaments; that the nerve fibres fill the space as completely as particles of moisture fill a given space in steam or vapor.

In making this statement, it is not forgotten that the blood vessels are distributed in a similar manner, though less minutely, throughout the system, so that the needle's point perforates one of them also whenever it is made to penetrate the surface.

As the heart is the great centre of this minute network of blood vessels, so the brain is the centre of that almost infinite network, the nervous system. This vehicle of the soul, the intellect

and will, this agent of all sense and feeling, is more emphatically a *distinct man* than any other part of the human system would be. True, health requires a harmonious condition of frame, muscle, digestion, circulation and assimilation; but may we not assume that bones and muscles, stomach and circulatory power, are mere adjuncts, aids and servants of the *nerve-man*?

We do assume that the brain and nervous system constitute the agent or instrument through which the soul becomes cognizant of external things, and by means of which it exercises its power upon matter. If we may use the illustration, it is the handle which enables the soul to take hold on matter; it is the connecting link between gross matter, oak, iron and granite, and that interior thought which determines into what forms and uses iron and oak shall be fashioned and made subservient to human power and purpose.

In Fig. 84 we introduce a rude illustration, a kind of trellis of the nervous system, it being the fourth in the series of systems which combined make up manhood. This shows the nervous system somewhat as the map shows the Mississippi and Missouri rivers in a rude and general way, without showing the ten million small streams and contributory rills which after a while get large enough to be shown on the map.

The nervous system is quite as pervasive in the constitution as is the muscular and bony structure, Fig. 62, or as the arterial and venous systems, Figs. 70 and 71, or as the lymphatic system, Fig. 72, it pervades the whole human structure; it fills the entire body. The nervous filaments connected with the brain penetrate everywhere, piercing bone and muscle, accompanying every artery and vein with its smallest ramifications. This is the man of nerve.

Imbued with sensitiveness the most delicate, capacity to suffer pain, or to enjoy pleasure the most exquisite,

the nervous system must be regarded as the crowning excellence, the sublimation of the physical organism. All the other parts of the structure are mere ministrants to this. What



FIG. 84. BRAIN AND NERVES.

were bone to give form, and erectness, and substance, and stamina to the human body without nerve to inspire and direct and utilize their action in producing motion and force? The history of paralysis answers the question. What were digestion and assimilation to feed and nourish and develop the man if he were without nerve power, without sensitiveness to pleasure and pain, and without the power of motion? What were delicious tastes, what were beautiful sights, what were harmonies of form and proportion, what were enrapturing strains of music without nerve to carry the report of these external facts to the internal man?



FIG. 85. EARL GREY. MENTAL TEMPERAMENT.

FIG. 85.--EARL GREY. This picture represents the mental temperament in very high degree. The head and face are pyriform, wide at the top, and tapering like a pear toward the chin. What delicate outline of figure! How refined and classical!

Observe the hands, long and thin. This is taken from a fine engraving published in London in 1843, with the fashions of dress of fifty years ago. The elaborate white neckwear then in vogue, with the high coat collar to cover the dressing of the neck from the

Let it not be said that we would endue mere nerve with soul-power; that we would make the immortal man to consist of mere matter. If anything more than another evinces the wisdom and skill of the Creator, it is this adaption of the nerve fibre to be the medium through which external things can be brought, so to speak, in contact with mind. The immaterial spirit, indestructible, immortal and invisible, is brought into connection and co-operation with outward life by the instrumentality of the varied and peculiar apparatus under the general name *nervous system*.

Certain it is that the eye is not sight; it is but the instrument of sight. The auditory apparatus is merely the agency through which all sounds are brought to the soul. The olfactory and the gustatory nerves are as necessary to tasting and smelling as are those of sensation to the function of feeling. But they are external. Behind the eye, which receives and forms the image, is the nervous retina, which is but the optic nerve spread out to receive the impression. This is carried through the optic nerve to the brain, and within that brain, using it as its agent or instrument, resides the conscious spiritual being that we call man.

Any one of the external senses may be destroyed, sight for example, while all the rest remain perfect, by destroying the connection of their nerves with the brain; still, within the mind, in his interior life, in his consciousness and memory, man sees the glorious rainbow; he pictures to himself faces of friends, the landscapes he has known and the starry heaven he has so often admired, but which, in the flesh, he shall see no more.

The old composer who had lost his hearing could still write oratorios and

play them with masterly skill. Though his ear refused to transmit the sound, his inner life knew the harmonies and his memory enabled him to enjoy, in silence, the music by which others were enraptured.



FIG. 86. LAURA D. BRIDGEMAN.
MENTAL TEMPERAMENT.

Laura D. Bridgeman, the first deaf, dumb and blind person ever educated, had so sensitive a touch through the education of her nervous system, that she was able to select different colored worsted, and manufacture elegant patterns of crochet work with the accuracy and taste in combinations of color that belong to the work of those who can see.

Behind, or within, all these delicate contrivances, these sources of joy and of sorrow, the soul sits serene, communing directly with its God, and indirectly, through its nervous instrumentalities, with all the *works* of God.

If this nervous system, this most delicate of all God's structures, has such exalted labors to perform in the outworking of the soul, need we argue

ear to the shoulder; the watch ribbon and seal at the hip, are characteristic of the time. Observe how classic are the features—slim nose delicately formed, and the eye keenly cut, and the refined lips, pointed, chin, and the broadly expanded temporal region, and

breadth and elevation of the top head. Such a mental and physical development indicates literary and artistic taste, and an irresistible leaning toward culture and refinement.

the necessity of keeping this soul-house free from every abuse and contamination?

Who, with this view of man's excellence, with this view of the infinite wisdom exhibited in his structure, can innocently violate the sanctity of this house he dwells in? Consider how this sensitive nervous system is tor-

Let those who would play upon this delicate human instrument with rude appliances do so if they will till wisdom reform them or death kindly rid the world of their presence and malign influence; but let it be ours to treat this temple of God with a refinement and gentleness, with a wisdom and care commensurate with the



FIG. 87. LUCRETIA MOTT. MENTAL TEMPERAMENT.

tured by the use of alcoholic liquors, how it is abused by the narcotic and the stimulating effects of opium and tobacco, how tea and coffee and condiments tend to pervert its normal action and promote disorder and unhappiness! Is it surprising that dyspepsia, gout, rheumatism, neuralgia and delirium tremens, heart trouble and nervous prostration, should utter their protest and thus seek to instruct the soul how better to govern the temple it inhabits?

beauty of its structure and the glory of its being.

This, the nervous system, like the blood vessel system, consists of two analogous systems: *First*, the nerves of motion which go from the brain and spinal cord, and carry the mandates of the mind to the extremities, and are the basis of muscular action or motion, and these are called motor nerves. No muscle can act without a nerve to give it impetus. *Second*, the other system consists of nerves of

sensation or feeling, carrying information, pleasurable or painful, from the extremities everywhere to the sensorium, to the brain and mind. Taking these two systems of nerves, it is impossible to conceive of a substance more pervading, more omnipresent. We have said that at every



FIG. 88. EDGAR ALLAN POE.
MENTAL TEMPERAMENT.

FIG. 88.—EDGAR A. POE was remarkable for an excessive mental temperament. His frame was light, slender and refined in its outlines; his features were delicate and sharply chiseled; his brain was uncommonly large for the size of his face and body; his skull and scalp were thin, his hair fine, and his head widened in its upper development. How massive in the upper part of the forehead, in the region of Reasoning! How broad in the region of the temples, where Ideality, Constructiveness and Sublimity are located! And the region of Spirituality was also enormously developed. He was remarkable for a critical and original intellect, a vivid and brilliant imagination, and for sensitiveness of temperament which was often painful to himself. His entire life was an intense excitement. The wierd and solemn sadness which runs through every line of "The Raven," had in his own life as much of truth as of poetry, and we can but regret that so gifted a nature could not have had environments which would have blessed and given sunshine to his life. He was the son of theatrical parents, and, of course, inherited the tendencies toward the dramatic with the peculiar susceptibility of the mental temperament. He died in 1849, at the early age of forty. His short but brilliant career has made an ineffaceable impression upon the world. Edgar A. Poe had dark hair and eyes, which carried a vein of sadness and shadow.

needle's point all over the body a blood vessel could be punctured and the vital fluid would respond; and now, at every needle's point of space on the surface of the body is a nerve or a multitude of nerves. We have, therefore, an all present sense of feeling, since every perforation of the needle's point everywhere gives pain. If every other tissue of the system but this, the nervous, were dismissed from the constitution, there would be left a complete nervous man. Imagine an image of exactly the size and form of a man made up of cotton fibre, and if it were colored a kind of pearly grey the cotton fibre would look like the nervous filaments; if everything else were dissected away, there would be the nerve man of the form and size of the original man, an essential part of the physical ego; and this is the nervous system.

When people complain of being "nervous," therefore, this infinitely diffused sensitive organism being everywhere, can it be wondered at that whenever this shall become feverish or in any way disordered it should make the whole man suffer? When we think of this delicate composition of manhood—muscle, bone, blood-vessel, lymphatics, and then add the nerves, so related as each to affect the other—we may well say, "Man is fearfully and wonderfully made." And yet people rudely kick and cuff, they stab and pierce, they pound, they bruise, they shoot and lacerate this complex and sensitive structure, and wonder why it does not always recover when it has been thus maltreated. Is it a wonder that a sensitive student, reading of the organic systems and the diverse ailments to which those structures are liable, should feel and imagine, as is nearly always the case, that he has all the diseases that are described?

And this, remember, collectively, is only the *machinery* of manhood; we have a man of mentality besides, and these are only his tools, his implements of health and power of con-

sciousness and achievement. The man of mentality, the soul power, lives in this house of many members, which are united by the great sensorium, the brain, where mind and matter coalesce and interplay in the development of mind and power.

And this, which feels, knows and inspires to action, is called the Mental Temperament; this is the machinery of that temperament; this becomes the connecting link between mind and matter. And on the healthy condition and harmonious working and interworking of these organisms depends the outcome of life and health and power. Verily, it is "a harp of a thousand strings," or ten thousand millions of strings. For who can count the nervous filaments? And every one is a factor. Who can count or estimate the capillaries which carry blood and nutrition or bring back waste material to be disposed of for the maintenance of health? Is it not really strange that a harp of so many strings should really keep in tune, or approximately in tune, so long? It must be remembered that the Mental Temperament is a part of every human constitution, though in some of the lower forms of idiots the mental system is so small, weak and defective that it is a large charity to call it Mental Temperament.

That which we denominate the Mental Temperament depends upon the predominance of the brain and nervous system. In a harmonious or balanced temperament, each system or temperament being represented in equal degree, the person is capable of manifesting the characteristics of each of the temperaments equally; but there are few persons so well balanced that they do not show manifestly a predominance of the Motive, of the Vital, or of the Mental Temperament.

Where the Mental Temperament predominates, Fig. 89, the frame is light, the head large as compared with the size of the body, and especially

as compared with the size of the face. When decidedly predominant, we see the high, pale forehead, broadest at the top, delicacy of features, expressiveness of countenance, fine hair,

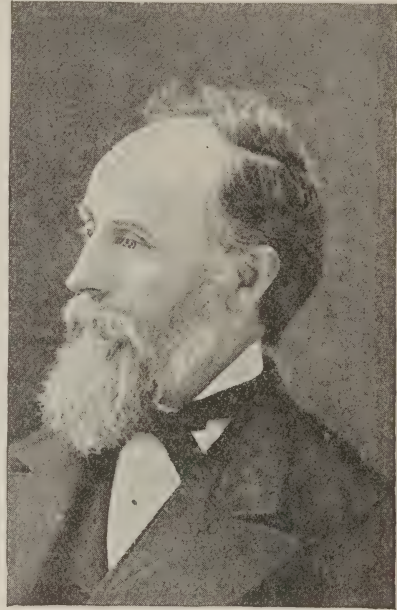


FIG. 89. JOHN GARDNER.
MENTAL TEMPERAMENT.

FIG. 89.—MR. JOHN GARDNER has outlines of face and head, as well as the qualities of body and mind, which belong to the Mental temperament. How sharp and definite the features! How elevated and expanded the top head, giving clearness and force to the moral qualities! His head measures over twenty-three inches in circumference, and his weight, about one hundred and thirty pounds, is forty-five pounds too light for such a head. He has a remarkably active intellect, is very sensitive and susceptible in his feelings, keen in intellect, and is one of the most successful of inventors. Mr. Gardner has the blonde type of complexion, which gives sunshine and cheer to life, unlike Edgar A. Poe. He is superintendent of the "Winchester Arms Co.," New Haven, Conn.

thin, sensitive and fine grained skin, and often a high-keyed, sharp, but flexible voice; the figure is delicate, elegant and graceful, but seldom strong or commanding. In dispositions and mental manifestations, such persons are refined and susceptible; they have taste, a sense of the

beautiful, vividness of expression, intensity of feeling, and are generally



FIG. 90. MENTAL TEMPERAMENT.

inclined toward study, thought, meditation, and to general mental manifestations; the thoughts are quick to come and rapid in their progress; the senses are keen, the imagination lively, and the moral dispositions strongly marked.

If a line be drawn around the head from the center of the forehead to the most prominent part of the back head, those having the Mental Temperament will generally show a head larger above that line than below it. If the temperament be of the vital type, it will often be found larger below that line than above it. The brow will be prominent, the side head broad, and the base of the brain comparatively heavy. With the Mental Temperament, the upper side head is prominent, ample and broad; the head is likely to be long and broad on the top, and well expanded and rounded upward. The logical, the sympathetic, the æsthetical and the aspiring elements are stronger than in those who have the Motive and Vital

temperaments in predominance. Most of the scholars and leaders of thought will be found endowed with more of the Mental Temperament than of each of the other temperaments. In this temperament the skull is usually thin and the bony material fine, and the scalp generally not so thick as in the Vital and the Motive temperaments.

Fig. 91. This indicates fineness of organization, delicacy of features and of quality, and a fullness of the brain development indicating a decided predominance of the Mental Temperament. In any collection of men the contrast between him and Figs. 74, 77 or 80 would be prompt and decisive. Little criticism is required to detect a decided predominance of either temperament. This head is broad above the median line; is decidedly intellectual, and clearness and vigor of thought would readily be inferred. There is nothing of coarseness of fibre or features or of the general make-up or of the expression that would give one the idea of

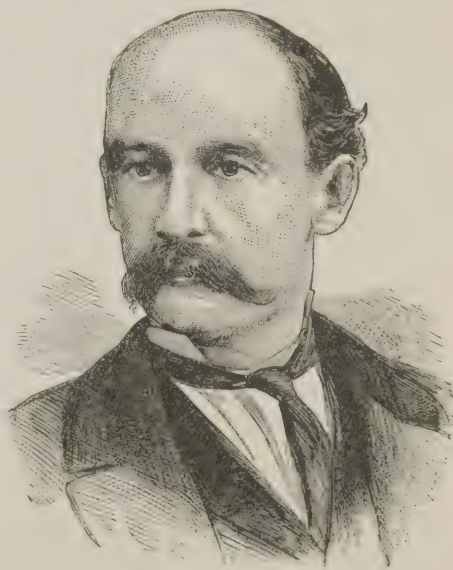


FIG. 91.—EX-GOV. CHAMBERLAIN.

the robust vigor of the Vital Temperament and the hard, bony, enduring power which belongs to the Motive Temperament.

CHAPTER X.

BALANCED TEMPERAMENTS.

THE proper balance of temperament, or that which is desirable, is secured when all the temperaments are strong as well as equal. The best results in life come from harmonious conditions of temperament or constitution, with organic vigor enough to make each temperamental element amply effective in the make-up of character and results.

Some kinds of ore make iron that is hard but brittle; other kinds are tough but not hard. In making car wheels, which require hardness in the "tread" and toughness in the spokes or plates, hard iron, which can be "chilled" in the process of casting, is mixed with tough iron, and the result is safety and success. Spring steel is soft while being wrought, but the process of tempering makes it hard, elastic and useful. The same is true with edge-tools—tempering gives the requisite hardness for the cutting edge. It is rare to find an ax which will not break from too much hardness, or bend from being too soft, if used in hemlock knots.

When all the mowing was done by hand, an uncle of mine reluctantly bought the last scythe in a store at twenty per cent. discount, because, being defective in form, it had been rejected; and it was so excellent in quality that it carried an edge nearly all day without being whetted, to the gratification of the owner and the wonder of all others. In its structure the right material was heated, hammered and tempered in such a manner as to make the best scythe, perhaps, ever produced; and for ease of using

and lasting qualities it was worth any dozen scythes ever made. In constitution and temperament that instrument was to common scythes what Milton Shakespeare, Alexander or Napoleon were to average manhood.

A balanced human temperament, or a balanced horse temperament, is the one that is most desired. All the modern struggles for superiority in horse flesh, paying as much as forty thousand dollars for a single horse, means that there is a difference in the quality of horses; that ten hundred pounds of horse does not mean the highest order of quality or constitution; but when the highest order of quality or constitution for given purposes in the composition of a horse has been reached, then the price, among knowing men, goes up. The qualities combined in the game chicken, in the race horse, in draft horses, in horses for courage and endurance, always aiming toward the desired result, are examples of constitution or temperament. Horses are wanted for speed and for endurance, and then the horse also needs to possess the kindly spirit, docility, integrity and intelligence.

Most men who attain to distinction reach it through some specialty of mental development or of temperament. Some men have the temperament of strength; they can lift or run or fight masterfully; others have the temperament of mentality, the power to think and invent and to do mental work; another has the sentiment, the pathos, the goodness, the love, but not so much courage, force, or even talent. But an all-around person with a perfect

temperament or constitution represents the motive or framework, the vital or nutritive, and the mental in harmonious proportions; and, as we have said, these proportions may be harmonious, but not strong. They may be equal in their force, but with not enough force in each of the components to make the sum total grand, and the quality high.

The best temperament undoubtedly is the one which so represents each of the three great temperaments that a keen observer can hardly say which is the better, the stronger, the superior; each quality must be seen, must be evinced in each person so that it is distinctly observable, and yet the other two temperaments backing and sustaining it so that it is difficult to say which is the stronger; and this being reached, then the question is, how much power is there in each temperament, and in all combined. Human success comes by a harmonious combination of the temperamental elements joined with enough of each and of all to be in the highest degree powerful.

Washington has been regarded as a model man; writers have hunted for words of adulation; perhaps patriotism had something to do with the reverence which he called out. Possibly a sharp analysis of Washington temperamentally might indicate more of the motive than of the mental; being more than six feet high, he had a powerful frame, and was all his life noted for physical agility and strength. Some of his contemporaries were his superior in intellect, but perhaps none of them in self-control and that dignified integrity, which in him elevated principle above profit or fame. Franklin was a better thinker. Hamilton had more versatility and mental brilliancy; Jefferson probably more of the astute logical powers, but Washington, in many respects, made his own fortune and fame by his harmonious character and conduct. He could wait and economize his force, and win by wisdom and prudence joined to courage and fortitude.

We introduce a few portraits which

have a leaning towards harmonious temperament.

Fig. 92. Chief Justice Chase, had a magnificent brain; the Mental temperament was amply and vigorously manifested; the smoothness which pertains to the outline of figure and features, show abundant vital or nutritive power; and he had a vigorous frame and ample muscle, showing a good Motive temperament. His body was strong and full, and at the same time tall and well proportioned.

Salmon Portland Chase, was the son of a farmer in New Hampshire, and was born Jan. 13, 1808. His ancestors were English and Scotch. His father died suddenly, and Salmon at the age of twelve was committed to the care of his uncle, Bishop Chase, of the Protestant Episcopal church who lived near Columbus, Ohio. The boy divided his time between farm work and hard study in the Bishop's academy. His uncle next placed him at school in Cincinnati until 1823, when he returned to New Hampshire and taught school, meantime preparing himself for Dartmouth College which he entered in 1824, and graduated two years later. He went to Washington to take charge of a school, which numbered among its patrons Henry Clay, Wm. Wirt and other distinguished men. During his leisure he studied law under Wirt's supervision, and settled at Cincinnati. He was opposed to slavery and acted with the Free Soil Democrats. On Feb. 22, 1849, he was chosen United States senator, and labored for the Pacific railroad, the Homestead Law, Cheap Postage and Reform in Public Expenditures, and in slavery debates took a commanding position. In 1855 he was elected Governor of the State of Ohio, and re-elected in 1857, and in March, 1861, he was elected United States Senator for a second term, but was appointed Secretary of the Treasury. In 1864, Mr. Lincoln appointed him Chief Justice of the United States. He died May 6, 1873.

As a legislator, as an executive officer in the Government during its trying period as Secretary of the Treasury,

and as Chief Justice of the United States, he filled every position grandly; the fulfillment of duty. He had fine fiber; he had ardor and endurance;



FIG. 92. CHIEF JUSTICE SALMON P. CHASE.

From Carpenter's "Emancipation Proclamation."

there was the right quality in him, and he had a manly face, a noble head, and there was abundance, muchness, for a commanding frame.

Fig. 93, Lucius P. Robinson, was one of the most efficient, wise and successful Governors of the State of New York, and that is saying much. In that face the framework of the Motive temperament is strongly marked; in that face and form the abundance of

tendency in their specimens to shade a little more toward one temperament than the others; but in this head and body and face, the temperaments are strongly marked, with perhaps a trifle advantage in favor of the Motive. Capacity, intelligence, integrity, stead-



FIG. 93. GOV. LUCIUS P. ROBINSON.

the Vital temperament is adequately represented; and the largeness of the brain shows the Mental temperament. Chief Justice Chase shows a little more smoothness, and perhaps a little less hardness. Observers will find, if they undertake to select a perfectly balanced temperament, there will be a constant

fastness, power and efficiency mark his life and his work.

Fig. 94, Gerrit Smith, was a masterful man and a many-sided man. His head was enormously large, but he had three hundred pounds of manly development to give it support; more than six feet high, he walked as a ruler, recognized

among men; in his presence men felt small in more senses than one. What a face! How the Motive temperament shows in it! Then the fullness

is difficult to say which is the better represented. He was born in Utica, N. Y., the 6th of March, 1797; inherited large landed estates from his father;

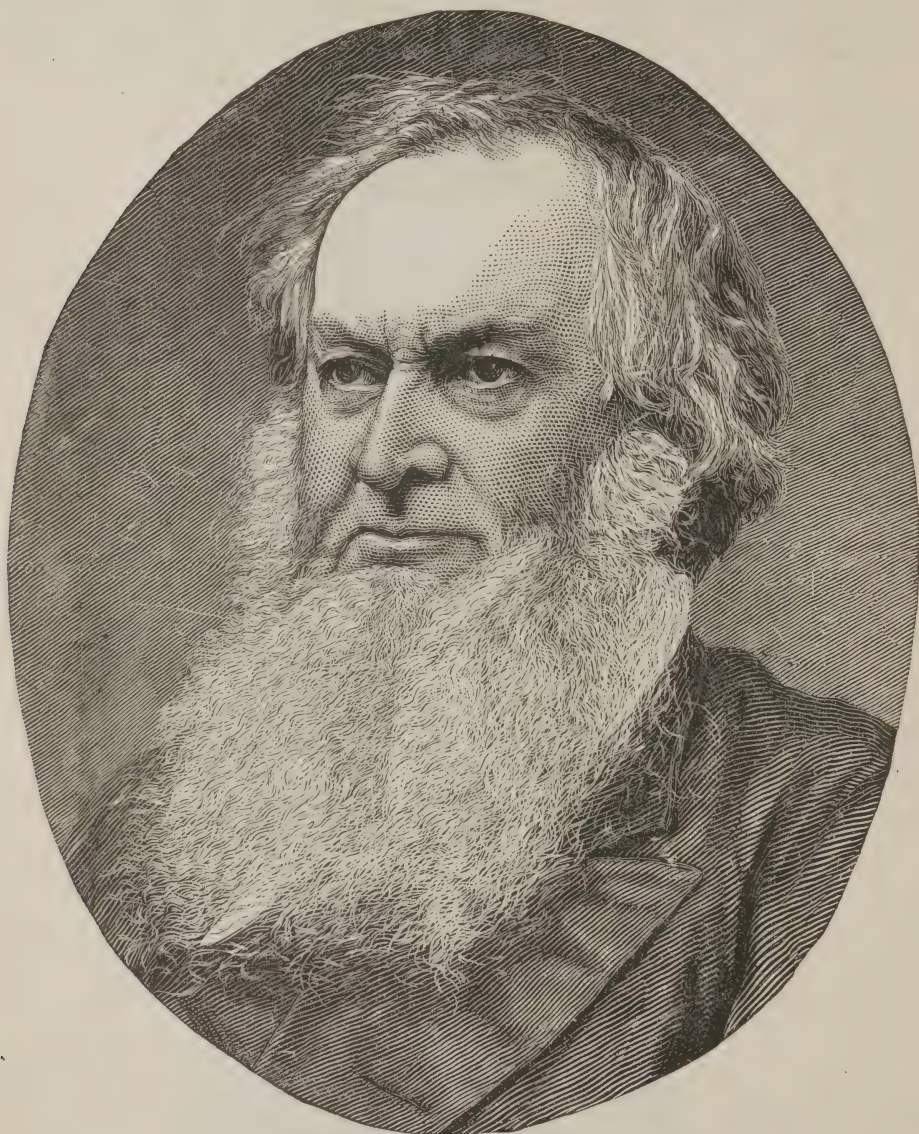


FIG. 94. GERRIT SMITH, PHILANTHROPIST.

and plumpness and abundance of the Vital gave smoothness and largeness and fullness to his face and body. His amplitude of brain represented the Mental temperament; and it

was a graduate of Hamilton College, and was constitutionally a philanthropist, inclined to benefit all who suffer, and mitigate misery everywhere. In early life, the characteristics of plumpness of

the face were manifest, and only became exceedingly heavy from the progress of years. He was one of the brainy men of his age, and one who sought to do good. On some points he was called fanatical, but the fanaticism had a basis of kindness, and the sentiment of justice as he studied justice.

he is capable of a great deal of work, and his biography shows that he is the worker of his church in this country. Without being especially robust, he is electric, sharp, positive, practical, clear cut and harmonious as a thinker.

He should be known for energy, briskness, good nature and kindness.

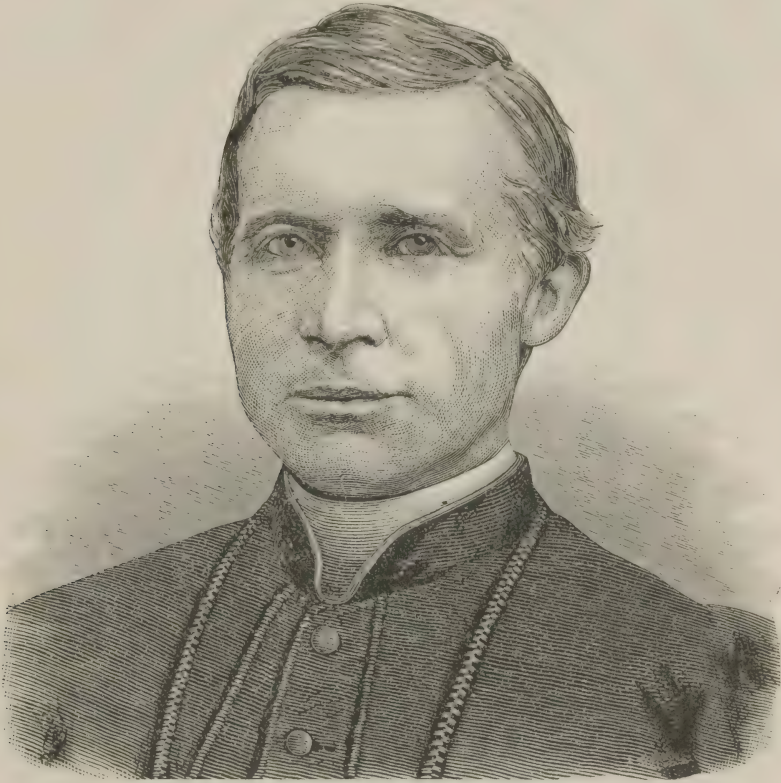


FIG. 95. CARDINAL GIBBONS.

Fig. 95, Cardinal James Gibbons, was born in 1834. This picture was made for him when he was about fifty years of age or a little less. In its study as a harmonious organization, we see the refinement of the Mental temperament, especially in the form of the nose and eyebrows and in the set and expression of the eyes; we see the Vital in the smoothness and comparative plumpness of the system; we see the phases of the Motive temperament in the compactness and moderate angularity of the organization. His features and his organization impress us with the idea that

Few have his even poise of will and ability to meet and overcome difficulties and annoyances. The face shows culture, not the one-sided training that is too often found in men of the professional callings, especially clergymen, but a harmony of development that belongs more to the man of affairs than to one engaged in a special line. He should be a good administrator or manager, with so many signs of practical talent in the forehead and sidehead, and with so much versatility he could be at the head of an institution or of a system,

and organize and direct its operation, however many sides there might be. Activity is the marked part of his nature, and in varied activity he finds his best means of usefulness and success.

much of each of the temperamental elements. In this head we see also large Combativeness, and this, joined with his practical talent and firmness and self-hood, would lead him to feel that he could overcome any difficulty

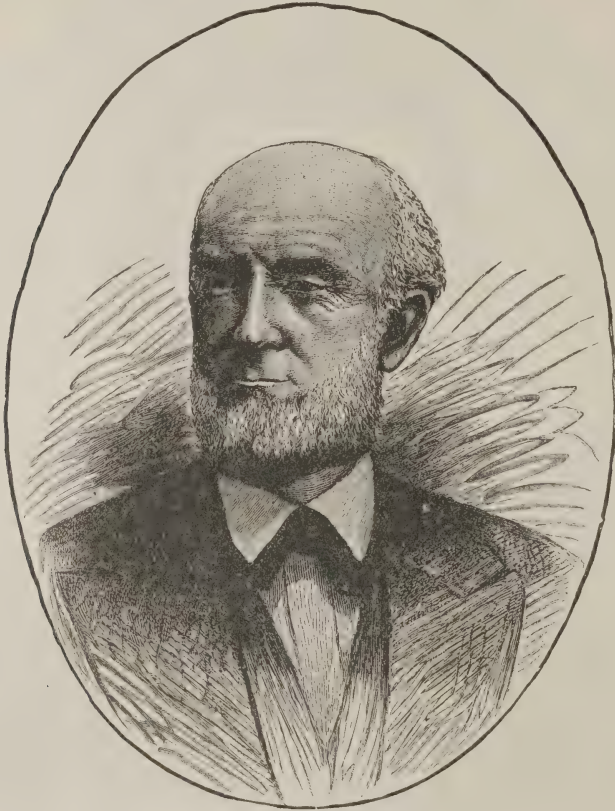


FIG. 96. JAMES B. EADS.

Fig. 96, James B. Eads, the eminent engineer, had the three temperaments handsomely and well represented. The first impression is that he had a predominance of the Mental; the largeness of the head, the smoothness of his development, the accuracy and almost classical elegance of his features serve to show it; and then his height, his endurance and hardihood, and the length of his features, and the length of his head and face indicate the Motive temperament. Probably the Mental temperament slightly predominates; but the temperamental constitution has

which could be mastered. He could have become a great military commander had he been thrown into that line of duty; he might have been a great statesman and scholar; he had inventive talent, mechanical originality and a great deal of that faith, which, working with the inventive, tends to reveal new processes and new fields and methods of achievement. His Hope was large, hence he was liable to magnify his prospects, and perhaps startle the world by his hopeful projects. To him, however, they seemed clear and

certain; and with his ingenuity to plan, and his force to energize endeavor, his achievements took a high rank. He is known and remembered for his improvements at the mouth of the Mississippi River, and for his construction of the St. Louis bridge across the Mississippi River. He was born 23d of May, 1820, a native of Lawrenceburg, Indiana, and was a resident of St. Louis from thirteen years of age.

ness of the face shows the Vital, the delicacy of the structure indicates the Mental, and the power and endurance embodied in his constitution show the Motive. His type of talent was intuitive rather than philosophical; hence he is a man adapted to emergencies, rapid and prompt to follow old rules and to make new ones according to the circumstances. We see in his history and in his make-up something of the

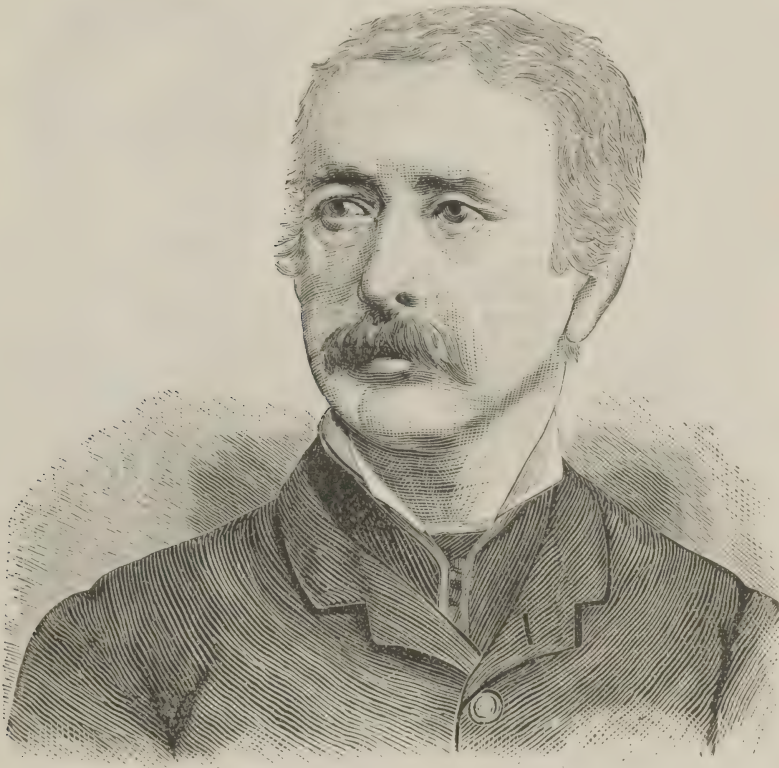


FIG. 97. SIR GARNET WOLSELEY.

Fig. 97, Sir Garnet Wolseley. His services in the British army and his campaigns in Egypt and other parts of Africa show the caliber of the man and the confidence reposed in him by his country and government. The whole aspect of this portrait indicates mental and physical activity, positiveness, intuition and force. The plump-

dash of Custer, the pluck of Sheridan and the steadiness of Grant. The elevation of the crown of the head shows not only the Motive temperament, but that masterful dignity and power of command which such an organization is expected to evince. On the return of Sir Garnet to England, he received the thanks of Parliament, and a grant of

twenty-five thousand pounds "for his courage, energy and perseverance" in the conduct of the Ashantee campaign, and was also knighted and presented with a sword, and with the freedom of the city of London.

Fig. 98, Rev. Morgan Dix, D. D., the son of General and Governor John A. Dix, was born in the city of New York in 1827, a graduate of Columbia College in 1848, and from the General Theological Seminary in 1852. At thirty-five, in 1862, his character and talent had won for him the Rectorship of Trinity parish, New York. His face and head indicate clearness of thought, resoluteness of purpose, definiteness of integrity, persistent thoroughness and a clear sense of what he deems to be his duty; and he is a thorough disciplinarian. Perhaps he inherits some of that spirit from his father, which, during the war, gave the order, "Whoever pulls down the American flag, shoot him on the spot." In this head the organ of Firmness is very largely developed, and that, working in conjunction with his Conscientiousness, renders his mind decided and positive, and even absolute. When he has reached a conclusion with his well-defined intellectual development, his Conscientiousness and Firmness combine to render that decision final, and so he will often be felt to be independent even to severity.

His Self-esteem is also well indicated in the face as well as in the head; and that which his own faculties reach as a result, his Self-esteem gives him a consciousness of the worth of his own work, so that he readily comes to feel as well as to think that his plan is the right one, and his method that which ought to be adopted and perfected. Then, he is cautious, but not timid; it makes him conservative and guarded and safe, and sometimes slow in reaching a point of progress and reform; he inclines to conserve everything that is worthy of being saved and protected and to concentrate and consolidate the facilities

which he holds, rather than to dissipate his strength or his skill or waver in his administration. If he had taken engineering as a line of effort, he would have been accurate and excellent in doing carefully whatever is nice in its needs and responsible in its uses. While some men are not keen thinkers, are not persistent and decisive and are inclined to do the ex-



FIG. 98, REV. MORGAN DIX, D. D.

terior, loose work where niceness is not required, as a cabinet-maker requires a nicer touch and a keener eye and a sharper perception and better Order than the man who fells the forest trees and works them into rough lumber. In a financial pursuit, a commercial or manufacturing business, he would have shown traits that would have made him a master in such fields, and with his culture in the way of scholarship, his training in the rules and regulations of a systematic hierarchy, he would build up his cause and make close joints and firm work.

Fig. 99, Eugene W. Austin, has a plump, well-nourished body, a full, manly face without hardness of expression; he has a good-sized brain and well balanced, and his temperaments are so blended that he is able to carry himself with courtesy where it is a trial

admirable development of the perceptive organs across the brow indicate ability to make himself acquainted with the external world and the details of duties and particulars regarding business or scholarship. He has a good memory of things and persons.

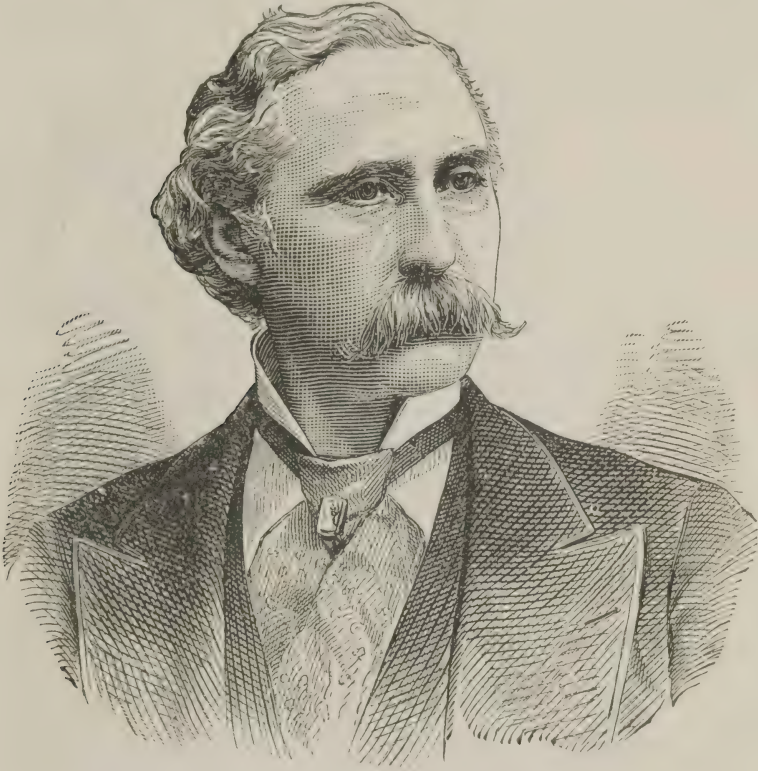


FIG. 99. EUGENE W. AUSTIN.

to do it, with courage and earnestness when necessary, and with a clear intelligence always. He is urbane and smooth in his manners, earnest in his purposes, and yet manages to achieve without jostling other people or making his life and efforts offensive to others. It would be troublesome to tell what temperament were the more manifest in his make-up.

In this portrait we have not only a large head, but one that is harmonious in development and fully brought out in several prominent particulars. The

He remembers facts; is apt and successful in relating that which transpired within the range of his knowledge, and he tells an anecdote in a manner that makes it entertaining and memorable. He is orderly and systematic in his work, critical and definite in his ideas, and arranges his plans and his efforts with relation to his other knowledge, and so he becomes a critic and a careful inspector of affairs. He has human nature well developed and reads strangers readily, and with his smooth and pleasant methods of

address and his easy conversational power and his cordial sociability, he can make friends wherever he moves, and secure the sympathetic assistance of others in the furtherance of plans and purposes that minister to his own pleasure or profit. He has the power of friendship and the ability to make that friendship apparent and effective and efficient. Sociability, politeness, wit, good talking talent, and the power to adapt himself to circumstances and individuals will mark his career and conduct.

We now turn with pleasure to the feminine physiognomy, phrenology and constitutional endowment.

Fig. 100, Miss ———. This is a strong and harmonious temperament, to represent which, a figure for our purpose might have been hunted for among thousands of people without success; and when a friend of ours brought her into our office and introduced her, our first impulse and impression was a decision that we would solicit her picture for this purpose. We have read of "love at first sight" among young people, but this was an absorbing physiological, temperamental *impression* at first sight, for which we felt very thankful.

She has a strong chest, square shoulders, ample frame, firm and expressive features, massiveness of brain, power of constitution, joined to good vitality and mental susceptibility.

The head measures twenty-two inches, and the weight is one hundred and forty-eight pounds. The figure being of good height, five feet eight, has also fullness and smoothness; the hands are plump and well nourished; the face is strong and smooth and at the same time expressive; the brain is amply developed across the brows; intelligence, memory, reasoning power, and moral sentiment, force of character, and affection, are among the strong traits; and then the temperament being harmonious, her physical and mental life, health and vigor should

carry her to eighty-five years of age with a clear head and a steady hand.

The excellent representation also of



ROCKWOOD PHOTO.

FIG. 100. MISS ———.

the Motive temperament, in harmony with the other temperaments, gives her more strength of countenance and firmness of build than is often found among women. One might look a long while for a better temperament or a more harmonious constitution, or one whose capacity for duty, usefulness and happiness are better provided for in the organization.

Fig. 101, Mrs. R. B. Hayes (Lucy W. Webb); had a strong face; the nose, the chin, the cheekbones, the arched eyebrows and breadth of the face just forward of the ears, indicate the Motive temperament. The altitude of the head at Firmness and Self Esteem represents that temperament; then there is a

was most amply endowed. Her Firmness and Conscientiousness, and her Motive temperament to sustain her in her positions, were manifest in the strength of purpose which she adopted during her residence in the White House. Some people thought her fanatical in some of her moral notions, but



FIG. 101. MRS. RUTHERFORD B. HAYES.

smoothness in the structure of the figure, the face and the head, which show the Vital temperament; her manners were mellow and gracious; she made no enemies; had a conciliatory spirit, and was personally welcome and attractive; and she had brain enough to show a marked amount of the Mental temperament; so that she had harmony of temperament, and it puzzles a critic to tell in which of the temperaments she

she had the firmness and the steadiness to carry them out.

The portrait exhibits a large development of the perceptive organs, which gives that great prominence and intelligent expression to the lower part of the forehead.

The fullness of the eye indicates abundant language, and there is in the whole lower half of the forehead an expression of observation, quickness of

perception, and sharpness of criticism and excellent memory. The upper part of the forehead indicates good common sense, but not a broad philosophic turn of mind. She was the scholar rather than the thinker, the brilliant conversationalist with power to gather up facts and information and have them ready for use. The crown of the head was well elevated. She had strong determination, ambition, pride, self-possession. Every feature was instinct with intelligence, energy, determination, and positiveness.

wherever she moves. Perhaps the Vital temperament would seem to be more manifest than the other two, when she says nothing and does nothing; but the moment she begins to act, the ardor, the executiveness, and the power, evince the Vital, the Motive and the Mental temperaments.

This face represents power, self-reliance, thoroughness, health, good perception, and decided force of character, and with her ample physique she can put into her professional work as an elocutionist a great deal



FIG. 102. MISS HELEN POTTER.

Fig. 102, Miss Helen Potter, lecturer and personator; a brilliant woman, a woman of power and positiveness, courage, fortitude and force; hearty, zealous, healthy, plump, impassioned, brave, with a relish for wit and humor, a capacity for the dramatic, and an impulsive, loyal friendship which carries weight

of force, fire and soul. Her personation of John B. Gough was a marvel of imitation, embodying sympathy, intensity, tenderness, pathos, power, and all that made Gough master of his audiences. Another of her characters was Lawrence Barrett in "Julius Cæsar." She recited the

text while dressed in costume similar to that which Mr. Barrett wore in playing the part, and many people thought the imitator surpassed the

representation until she cried. Miss Potter has intense realism in her personations, and sometimes outdoes the original.



FIG. 103. MADAME DE LESDERNIER.

model. Oscar Wilde was another of her characters, and it was astonishing to see how she could go from the impassioned Gough to the peculiarly mellow pliancy and smoothness that belonged to Oscar Wilde, and she has just the kind of wit and sarcasm combined that enables her to caricature gently while she merely proposes to imitate. Susan B. Anthony attended one of her representations in which she herself was portrayed by Miss Potter in dress, manner, tone and voice in one of Miss Anthony's masterly speeches, and some said that Miss Anthony laughed at the

Fig. 103, Madame De Lesdernier. This lady was amply endowed with the three temperaments—Motive, Vital and Mental. She stood nearly five feet ten inches high, had a large frame, strong and expressive features, indicative of the Motive temperament; her hair was nearly black and abundant; her eyes were dark and magnetic. Her plumpness was such as to give her about 160 pounds in weight, and, for her height and frame, that was as nearly right as art and fancy could wish it. Her intellect and all her mental make-up evinced the Mental temperament, and she was a very fine Dramatic reader.

CHAPTER XI.

TEMPERAMENTS NOT BALANCED.

IN a crowded city a person may hunt for a month to find a well-balanced temperament. The term temperament means a mixture or combination of constitutional qualities useful and necessary in the make-up of manhood or animal life. There are all grades of balanced temperaments from strong to weak, as there are of wagons, from the heavy truck to the light road wagon, all parts of each made proportionate to the other parts, like Dr. Holmes' "Wonderful one-horse shay," which lasted "A hundred years to a day," and became worn out at a given moment and broke down into a worthless heap.

Balanced temperaments being rare and seldom found, either at par or at any other grade down to harmonious weakness, it follows that the important study of the temperaments becomes, for the most part, a study of departures or variations from the true standard of development.

Observe with something of a tailor's admiring criticism a company of cadets or soldiers on parade, and see how few, notwithstanding some padding of the breasts and sleeves, have satisfied you. Go to a gymnasium or to an athletic or calisthenic club, where exercise is done publicly and where the clothing does not, by puffing or padding, obscure the form; or go to the bathing beach, where the crowd of sparsely clad pleasure-seekers tempt the restless waters and display the structural form of their constitutions, and how few there are in a hundred whose figure is satis-

factory. And those who chance to have a favorable temperament for health, grace and power, how joyous does the man or woman seem in the display of it! If one with thin limbs, narrow shoulders, flat chest and weak structure generally, starts for the surf, consciousness of deficiency, not modesty alone, is expressed in every timid motion, till the kindly surf defeats criticism; whereas any one man, woman or child, with faultless figure and ample endowment of vitality and power, will walk with ease, graceful self-possession and evident pride.

We have, in Chapter VII., discussed the Motive temperament; in Chapter VIII. the Vital temperament, and in Chapter IX. the Mental temperament, showing and describing parts of the constitution which belong to the different temperaments respectively. In these discussions, we have aimed to show how much the Motive temperament covers of the constitution, what part of the organization it is that makes up that temperament, and so of the Vital and of the Mental. When these temperaments are equal and harmonious, we call the temperament balanced, and we have discussed, in Chapter X., what the general appearance of the constitution is when the temperaments are harmoniously and strongly developed; and with these expositions of the several temperaments and of the temperaments in harmonious combination before the reader's mind, he will be able, all the better, to understand that which now remains to be done in reference to

temperament, namely, the unequal developments of the temperaments, or the "temperaments not balanced." And we wish the reader here to dismiss from his mind the idea that a balanced temperament, whatever its grade of power, is all that is required. It needs to be strong as well as harmonious. Houses are built with light timbers, scanty covering and improper fastening, but it is the same from top to bottom; it is all alike; it is harmonious but not strong.

The discussion now before us relates to structures that are not harmoniously developed, or where the qualities are not of equal power and influence.

The reader goes out into the world and begins to study temperament; as a person approaches him he says to himself, "Now, I will see whether the Motive, the Vital or the Mental temperament predominates; sometimes he can readily see it and feels satisfied; sometimes he sees evidences of each of the temperaments; but then he is puzzled to know how much there is of one and how much proportionately there is of another, how well the balance is indicated?"

If he cannot tell which of the temperaments is most adequately endowed or most prominent in its development, the inference will be that it is a balance of temperament; but balanced temperaments are so scarce, one will tire himself in hunting to find one. We wish the reader to be so well versed in the matter, that whenever one appears, he will know it as quickly as a draughtsman would know a perfect circle, or an astronomical observer a moon that was perfectly full, not phased at all.

In the portraits that we present under this head, we wish to say in advance, if we happen to get a portrait of any man who is almost as well balanced and as strong and perfect as might be desired, it is an object lesson to the reader; he may carry it in his mind to contrast with some other less perfectly balanced and less vigorously endowed. And

though the portrait is inserted under the head of temperaments not balanced, it does not mean that whatever illustration we may give is therefore unbalanced; it will be seen, and we will be careful also to state the fact if we think the temperament is well balanced.

Fig. 104. In this portrait of Cyrus W. Field, the father of sub-marine telegraphy, there is distinctly seen evidences of the Motive temperament; the long, strong nose, the height of the person, and the height of his head in the region of the crown. He stood six feet high, was a man of strong frame and he had also in connection with these evidences of the Motive temperament, a great deal of natural mental excitability, so that the Motive-Mental temperament would be the title we would give his organization. He was born in 1819 in Stockbridge, Mass., and was one of the hardest workers in the world. He had toughness and endurance originating in the Motive temperament; he had also a fair share of the Vital and a high degree of the Mental temperament. Hence an active development of mind proceeding from such a constitution rendered him prompt, determined, persistent, alert, keen and earnest, and he had a kind of magnetism about him that commanded attention and respect, as evinced in his wonderful achievement connected with the disappointments and delays in laying the Atlantic cable. In 1856 he organized in London the "Atlantic Telegraph Company," and he subscribed for one-fourth of the whole capital of the company. By personal effort he procured from the British and American Governments aid in ships, and accompanied the expeditions which sailed from England in 1857 and 1858 to lay the cable across the Atlantic Ocean. Twice the attempt failed, once in '57 and once in '58. The third attempt was successful, and in August, 1858, telegraphic communication was made across the

ocean. It worked a few days and became silent; the public lost faith and resisted; the project now became more difficult than ever, but its chief promoter, Mr. Field, renewed his efforts, crossing and recrossing the ocean scores of times during seven weary

to the Western shore. Mr. Field had the prophetic sagacity to see what ought and could be done, and the courage to make the effort, the iron will and the persuasive wisdom which could lead, govern and co-ordinate the mental, financial, legislative and



FIG. 104.—CYRUS W. FIELD.

years, until at last in 1865, a better cable and better appliances were prepared, and the ship, "Great Eastern," a marvel of unyielding folly except for cable laying, took it on board and sailed west, and after paying out twelve hundred miles the cable broke and was lost. The ship returned to England defeated. In 1866 another expedition set out and was successful. The Great Eastern returned to where the year before it had lost the cable, found it and spliced it with one which she had on board for the purpose, and carried it

popular forces requisite to begin, manage, and finish such an undertaking, which qualities in any one man might not again be found in a century. John Bright pronounced him the Columbus of modern times. At the age of thirty-five he devoted himself to the great untried task, and at forty-seven he had realized his hopes and won the perpetual gratitude of the human race. He was one of four brothers, each being pre-eminent in his sphere of effort. Judge Field being one, and David Dudley Field was another. He died in 1892.

Fig. 105. In temperament, George Law was in some respects a contrast to Cyrus W. Field; each man was a power and a success in his way. What sturdy features! What a strong, full, massive development, indicating the Vital temperament! What broad

at the bottom of the ladder, namely, as hod carrier, and worked thirty-three days and earned thirty-three dollars. In the Winter work failed, and he studied arithmetic, geography and bookkeeping. In the Spring he went to work as a mason and



FIG. 105.—GEORGE LAW, A MIGHTY MAN.

cheek bones, showing that the Motive temperament was amply developed! What a broad and masterful chin! What projecting eyebrows! What wealth of black, wiry hair! His voice was bass and terrible when aroused; his will was the law where he had a right to rule. He left the farm and became a builder, starting

bricklayer. His employer failed and he lost his Summer's work; but nothing daunted, he walked twenty-two miles to a job, earned the same wages per day, and walked back and paid his landlord. He rose to be a sub-contractor and finally a contractor; and before he was thirty years old he had made a fortune,

married, and was the father of a little family. He bid for, and obtained some sections of the Croton Aqueduct, and to him was awarded the contract for the building of the High Bridge over the Harlem River for the passage of the Croton Aqueduct, and it was the execution of this work which made him a millionaire. He was a natural mechanic, a good inventor, and he contrived ingenious plans for saving labor on this great job, so that, although he took the work at a very low estimate, he made it immensely profitable by means of the labor-saving apparatus which he invented for the purpose and used. The High Bridge across the Harlem has been for fifty years the wonder of visitors to New York City; but recently when making the new Croton Aqueduct, as they approached the Harlem River, instead of crossing it, as George Law did, by a very costly bridge, a shaft was sunk in the solid rock vertically below the river; it was continued horizontally under the river, and an upward shaft was made to bring the water back to the original level, and then it was sent on under ground through rock to the city. The steam drill and electric light made this possible and profitable. This serves to mark the change in engineering methods since 1840.

George Law, having made a fortune, engaged extensively in ocean steam navigation, having at one time not less than sixteen large steamships. To him belongs the credit of the Panama Railroad; though he did not originate the idea, without the aid of his capital and energy the road could not, at that time, have been built. In 1855 he was much talked of as a candidate for the Presidency. He was a mighty man, bodily and mentally; he weighed heavily, was solid, hardy and enduring, was tall and brawny as a giant, and he had a strong, practical brain to match, and he was a law unto himself and always a law to all whom he employed. He knew what ought to be done and

how, and would brook no delay or deficiency. He was rough in his manners when annoyed. His integrity and efficiency were recognized, and what he laid his hand to was expected to succeed. He would be master of his affairs. A captain of one of his steamers ordered some repairs without consulting Mr. Law, and when the bill of \$250 came in he declined to pay it. "But Captain Ward ordered it." Then said Geo. Law, "Let Captain Ward pay it." When the captain refused to pay it the claim was renewed and a suit threatened. Geo. Law replied as roughly as language could be framed. The suit was brought and a verdict taken by default, and Geo. Law paid the execution. Capt. Ward and the other fifteen captains, when in the home port afterward, asked the owner's consent to spend any considerable amount on a steamship. Geo. Law must be recognized as master of his own business if they were captains of his ships.

In George Law there was a high degree of two of the temperaments, the Vital and Motive, and a strong manifestation of the Mental, and Combativeness, Destructiveness and Self-esteem enough to master resistance.

Fig. 106. The temperament of Mr. Longfellow indicated a full degree of the Motive, a large degree of the Mental, a good share of the Vital temperament; and the Vital and Mental combining rendered his feelings and character smooth and pliable, and his language was sympathetic rather than coercive. He was affectionate and hopeful rather than dominating. He had very large perceptive organs, which rendered his mind fertile in description. His Language was amply developed, so that what his Perceptives recognized or his imagination suggested was presented in smoothness of diction and with a rhythmical harmony. He was a poet of things as well as of sentiment, and if one will read his "Hia-

watha " and note the thousand and one things which he draws into his lines, and by reiteration renders them rhythmical and musical, it will be seen how his large Perceptives and knowledge of things enabled him to

Hawthorne and John G. Whittier. His style was smooth and musical, his sentiments pure, elevated and genial, and his charming melody is loved and appreciated alike by scholars and those not favored with critical culture.

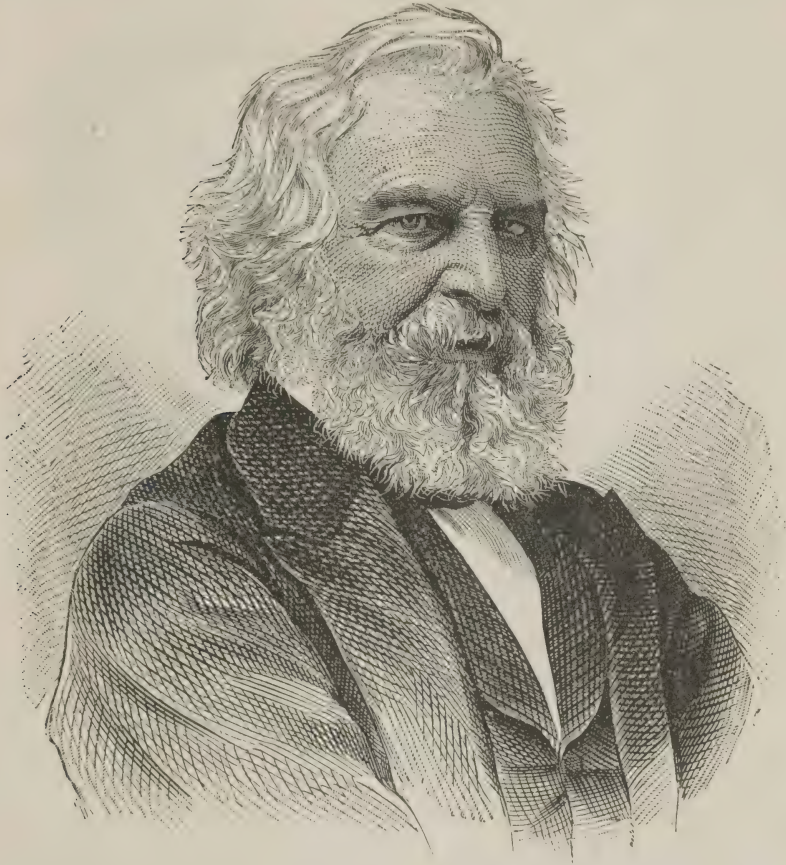


FIG. 106.—HENRY W. LONGFELLOW.

do that which, in the hands of a poet like Moore or Poe, might have suffered. They were poets of sentiment, and outside of the realm of sentiment and imagination not great. The lower part of the forehead of Poe, Fig. 88, when contrasted with that of Longfellow, shows why their style was unlike.

Mr. Longfellow was conspicuous in that brilliant galaxy of genius which included James Russell Lowell, Dr. Oliver Wendell Holmes, Nathaniel

The genial Dr. Holmes is the only one of that gifted circle now left, and though he has passed several of the milestones beyond the four-score, his mind seems as bright, his inner life as young, his social spirit as cordial, and his wit as keen and playful as when no gray messenger of time had ventured to touch his honored locks. Mr. Longfellow was born in Portland, Me., Feb. 27, 1807, and died at his residence in Cambridge, Mass., March 24, 1882.

Fig. 107. Thomas A. Edison has a temperament indicating a predominance of the Mental and Vital. The Motive temperament is not specially marked. Physically he is not to be thought of in connection with such men as Cyrus W. Field or George Law. Mr. Edison has the Mental temperament highly developed, and a full degree of the Vital temperament to give it nutrition; but he works smoothly, silently, patiently, is always busy, never tired, never in a hurry and never idle. He was born at Milan, Ohio, Feb. 11, 1847. When a boy running the streets he would get old clock-works and make structures with great ingenuity. He became a telegraph operator in the West, and was known to a few as one of the very best.

His advent to the East has been humorously told among the experts in the art, and may not be out of place here.

A leading man in a large telegraph office in Boston was offered a situation elsewhere, and the manager inquired of him if he knew a person who could fill his place; he told him he knew of but one man, and that was Thomas A. Edison, and he was in Chicago. He was telegraphed for, and when he reached the city he had a misshapen straw hat which had seen service and become pyramidal; he wore cotton clothes, and looked, after his long journey, anything but attractive. When he quietly announced his name to the manager all hands in the office looked upon him with contempt, and laid a plan to "roast him out," and placed him at the instrument to "receive"; that is, to hear and write out the matter as it came over the wires from Washington; the operator at Washington having been secretly requested by some envious operator in the Boston office, to "shove" the one who was receiving. He sat for four hours thus receiving, with a row of men standing with open mouths, watching his marvellous speed and accuracy. The machine clicked faster and faster, in-

creasing the speed beyond precedence, and still there was no outcry from the receiver to "repeat," and finally the operator at Washington, who knew of Edison in Chicago, inquired over the line, "Who have you receiving? It must be either the devil or



FIG. 107.—THOMAS A. EDISON.

Tom Edison." The man with the dilapidated straw hat quietly responded over the wire: "It is Tom Edison at your service," and that ended the extra speed, and convinced all the observers that the man under the straw hat was not to be despised; and several other people have since found it out.

Mr. Edison is known as the inventor or improver of the Telephone, of the Electric Light, and of the Phonograph or talking machine; also of the duplex system of telegraphy. He is modest and commonly silent, never boasts, but quietly works his way on to victory. We suppose he has made an ample fortune; he has doubtless done the world a thousand times more service than his fortune amounts to, and his name is yet to be elevated and more widely known. His work is but just begun, and his usefulness and fame, like that of Franklin and Morse, will broaden and brighten by time.

Beneficent invention is the sure passport to perpetual gratitude and fadeless renown.

Fig. 108. Mark Lemon.—This portrait indicates a man very highly endowed with the Vital temperament. He was large, heavy, plump, and as

There was in that development, a tendency towards intemperance in eating, in other words, over-nutrition. He could digest twice as much as he needed. Obesity was therefore his bane; though he was a man of wit and brilliancy, his temperament was



FIG. 108.—MARK LEMON, EDITOR OF "LONDON PUNCH."

he became older, was fat and unwieldy. He had hard, strong hair, large bones, and a very solid and substantial muscular development; hence he was Vital and Motive; more strongly Vital than Motive. If such a man would live temperately and exercise abundantly, he would be likely to attain to a great age. He evidently resembled his mother, from whom, probably, he obtained his Vital tendency. His forehead indicates practical talent and excellent memory and ability to use all he knew to a good advantage at a moment's notice.

a temptation to degeneration in tone and character.

Fig. 109. James B. Richards had a remarkably fine quality of organization, was tender, gentle, sensitive, susceptible and exceedingly sympathetic. He had large Mirthfulness and was witty. He had large Ideality and was poetical. He had large Language, and was one of the finest delineators of tender and touching and sympathetic subjects that I ever knew, personally. He was broad in the region of the temples. With large Ideality, Mirthfulness and Self-

esteem, he had rather large Constructiveness; he had good perceptive intellect, wonderful order and patience that knew no fatigue, persistency without parallel. He was an assistant of Dr. Howe, of Boston, who educated Laura Bridgeman, the

years ago he died of pneumonia, and I remember that George William Curtis sat at the head of the coffin at the funeral, showing what one cultured, thoughtful, gentle nature thought of James B. Richards.

Mr. Richards was a natural mis-



FIG. 109.—JAMES B. RICHARDS, TEACHER, ESPECIALLY OF IDIOTS.

deaf, dumb and blind girl. Mr. Richards astonished the world by educating idiots that seemed to be utterly helpless and senseless; and in the progress of time, calling out the feeble spark and culturing it so that one such boy repeated the Lord's Prayer after three years of training, and a distinguished bishop said, with tears trembling in his eyes, "I never heard it better recited." Mr. Richards had a school in New York for feeble-minded children which I often visited, and it was a marvel to witness from time to time the changes that he would make in the condition of those that had been neglected and despised. A few

missionary. His father and mother were among the first American missionaries in the East. They went there directly after their marriage and commenced together to study the manners and customs of the people and also to study the language of the country. At the same time that they were studying and becoming pupils of the heathen, they were preparing and exercising their faculties in gaining access to the thoughts and giving instruction to the people in a religion to them new, and of course strange; and while thus engaged in this peculiar work of student life and teacher life at once, they became parents of James B. Richards. The parents

had made themselves teachable in learning this strange language, and at the same time had mellowed themselves to habits which brought them clear down to the comprehension of the people who were learning from them new thoughts, new ideas; and their child inherited this faculty to teach and this teachable spirit, and probably since time began there was never a child born under circumstances so favorable to make him a teacher of those low down in comprehension, and in respect to whom there is great difficulty in minifying the truth, in other words, grinding the whole corn so that the little chickens can eat it.

Thus he was eminently qualified by his parentage and their peculiar condition to become a teacher of the little ones. He would go to a family where there was an idiotic child or a child that was remarkable for weakness or imbecility, and he would want the parents to say nothing to the child and let him be in the room alone with it, and he would get down on the floor with the playthings and commune with the child at its own level, and thus learn its status, its grade of mentality.

So he commenced with one idiotic child that was considered as senseless as an oyster; he lacked even the bodily perception of touch, so little was his nervous system developed and cultured. The boy was brought to Boston for Mr. Richards to deal with. He was not dressed, simply wrapped up; he lay on a pallet on the floor; and made no intelligent noise. Mr. Richards lay down by the side of him, and drew his hands over him gently, magnetically; and then he would take a Greek book and read aloud, and he had a peculiarly sweet and sonorous voice. He read to him that way an hour a day, of course, read merely to occupy himself and keep himself posted in Greek and to busy himself and be near to the child, eight years old. After six months' reading daily to him an hour while

lying on the floor, he thought he would remain in the chair and read, and the child began to express displeasure, discomfort. He would lift one shoulder and partly roll over, and manifest by a noise he made, a kind of moan, that he was not quite satisfied. Mr. Richards watched him and read some more, and a repetition of the discontent was made. And it occurred to him that perhaps the child wanted him to lie down as before and read to him as he had done. He lay down by the side of him and commenced to read, and the boy drew a long breath and gave an expression of contentment—uttered a sound of satisfaction—and this was the first dawning of that child's intellect, the first manifestation of choice or preference; and the teacher was so delighted with such slow success, even of such small measure that he ran to Dr. Howe in the institution, dancing with delight, and he said: "Eureka! Eureka! I have found it! I have found it!" And this was the boy that recited the Lord's Prayer in the presence of the Bishop after three years' training.

Fig. 110. This portrait of the Indian Chief is a contrast to James B. Richards. The face is coarse and powerful, a great bony nose, strong cheek bones, a heavy, hard upper lip, large development across the brows in the region of the perceptive, which constitute mainly the Indian's intellectuality, with a moderate development of the upper part of the forehead, where the reasoning and creative faculties are located. The base of the brain was large, showing severity, cruelty, and the qualities that go with rude, savage life. Two generations of culture of the children of such a person, separated from the wild, rough usages of the life of their ancestors, would increase the upper section of the brain, would soften and harmonize the features, and would tend to equalize the development of face and brain and body and modify the tem-

perament. The Motive temperament is the strong one in this organization; the Vital is second in strength; the Mental is only medium. I once saw this Indian in New York on exhibition and shook hands with him.

If the reader will turn to Figs. 27

and deficient in these Indian portraits, while in Caleb Cushing and other cultured and civilized men, the tophead and upper part of the forehead, especially, are more broadly and amply developed. Across the brow, Red Cloud and Black Hawk are amply developed, and their culture

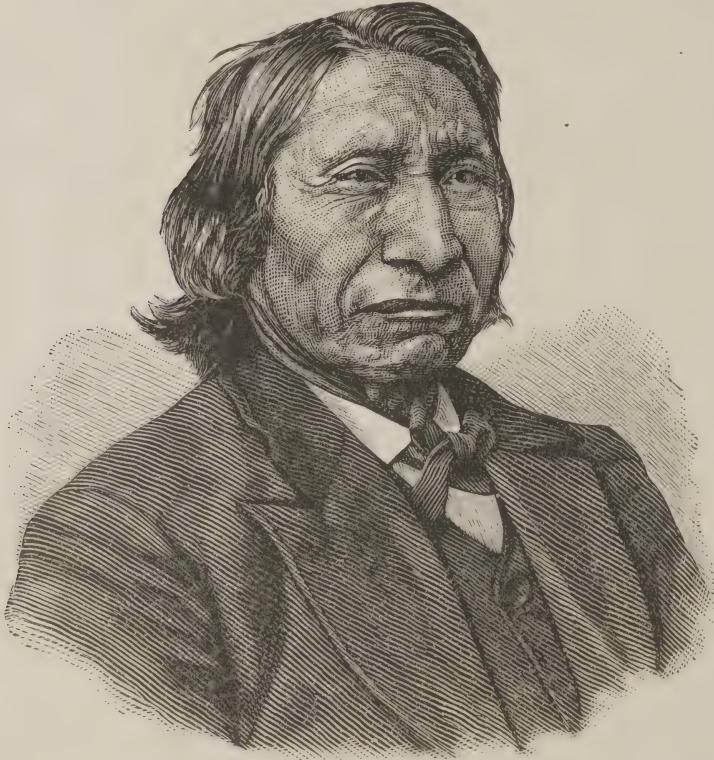


FIG. 110.—RED CLOUD.

and 28, and study the head of Black Hawk in connection with that of Red Cloud, of the same family of mankind, he will have a vivid sense of the difference between the wild man without civilization and culture which never rises above the mere acquisition of the means of subsistence, and a member of the Anglo-Saxon race as presented in Fig. 111, Caleb Cushing. Red Cloud and Black Hawk have a narrow and pinched top head; the reasoning intellect, shown in the upper part of the forehead is narrow

in the study of things and mere external phenomena and the confining of their minds mainly to the objective, the practical, have brought out the Perceptive development in the Indian race in a remarkable degree. As that is almost their sole dependence in respect to knowledge and the means of meeting and mastering difficulties, they are exceedingly keen in their observations and wonderful in their memory of things.

Another contrast between Fig. 111 and the Indian's head, is the enor-

mous difference in the development of the middle lobes of the brain above and about the ears, in which region are located the organs of animal propensity and force. The Indian is Combative, and especially Destructive,

from that of Figs. 109 and 111 as the forms of the heads vary, and these furnish a broad and intensely interesting study by way of contrast both of temperament and mental organization.

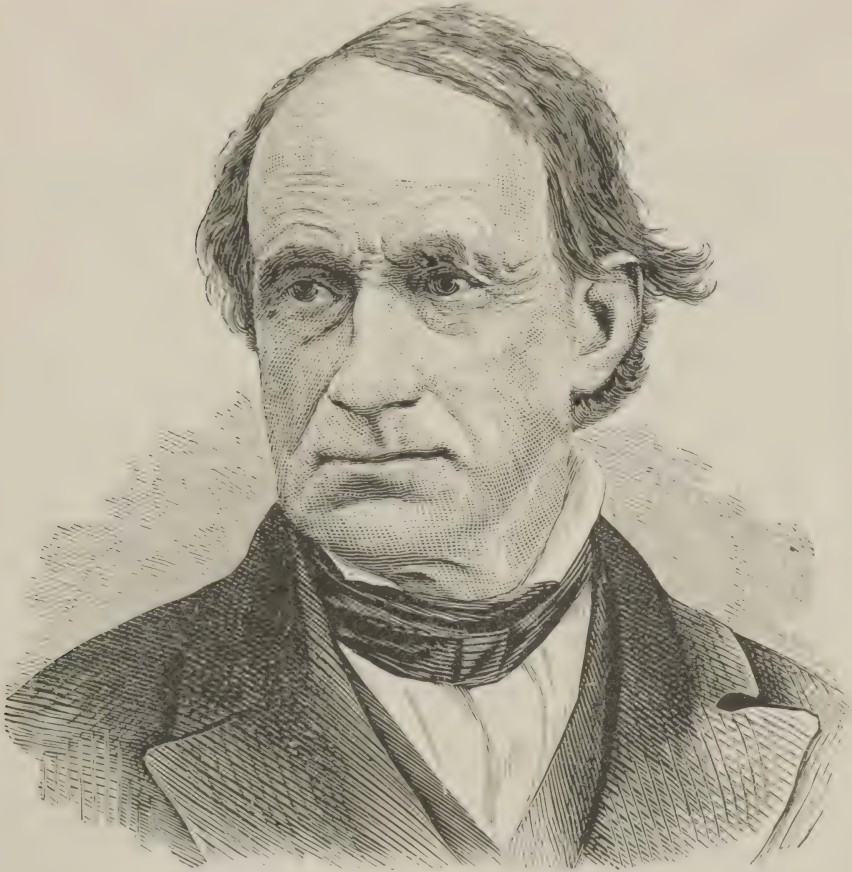


FIG. 111.—CALEB CUSHING; STATESMAN AND JURIST.

secretive and cautious. With those who live under law and have the protection of person and property by laws established by the commonwealth, the need of personal protection and defence is so mitigated that the organs involved in these functions need not be so strong as in the wild man, whose might is in his right arm, and whose security is largely promoted by his cunning and prudence.

The temperament as indicated in Figs. 27, 28 and 110 is as different

Fig. 111. This portrait exhibits a predominance of the Mental temperament with a full degree of the Vital temperament, and an average degree of the Motive. He was a lawyer and orator, a member of Congress, a Senator and a Judge; was one of the finest intellects of his time. As a jurist he was subtle, clearheaded, highly educated, and well informed. What a contrast this head and face gives us with Red Cloud, Mark Lemon or George Law!

CHAPTER XII.

SENSITIVE TEMPERAMENTS.

Fig. 112, H. B. Claflin.—This gentleman, who died suddenly from apoplexy, about 1887, was known as an eminent merchant, and the firm of H. B. Claflin & Co., which he founded, is perhaps the largest wholesale dry goods house in America. Mr. Claflin stood about five feet seven inches high, weighed perhaps 140 pounds, though later he may have gone up to 150; but he had a peculiarly delicate constitution; his voice was smooth and not heavy; his skin was exceedingly fine; his temperament was mainly Mental; his skull was thin; his scalp thin, and his features delicate, and his whole make-up indicated gentleness and sensitiveness. In his manners he was polite and gracious; common people liked him, for he walked modestly among men; there was no display, no haughtiness of manner, and few would suspect his power or position. He was rapid in his thought and in his movements, had great elasticity of body and mind, which worked easily. Not one man in fifty thousand has so fine a skin or so sensitive a brain as his, and he impressed every observer with the fact of his extreme cleanliness and delicacy, was not feeble or sickly, but he had the quality which indicated refinement and susceptibility.

He had a harmonious balance of developments. He should have had more Self-esteem, but his intellect was clear, his memory retentive, and all the details of business were quickly grasped and firmly held. He had intuitive judgments of people and of

the best way to get along with those who were difficult to deal with. He was industrious; his methods of doing business were of the highest moral type, and everybody believed in him and he had their good will.

The perceptive organs across the brow were sharply developed; the temples widened out, showing Order, Calculation, ingenuity, taste and refinement. The upper part of his forehead was massive, showing good reasoning intellect, and the top head shows large Benevolence and a full degree of Spirituality. His moderate Self-esteem was the weakest part of his constitution. Perhaps no man in this country ever accumulated the wealth that he possessed and acquired and retained such sympathetic regard for the common people who came in contact with him and those who were in his employment and service. They were willing that he should be rich; few men who are rich ever carried themselves with such gentleness and kindly consideration for other people.

His success in life was doubtless the result of clearness of thought, ready and rapid intuitive judgment, sound common sense, great industry, connected with sound, moral culture, and a thorough, practical business training. He justly merited the rank and reputation and also the wealth which he acquired. As an indication of the moral tone and courage of the young man, it may be stated that when he and a partner bought out the store of Claflin's father, who had kept spirituous liquors as a part of the stock of

a country store, Horace B. had the casks rolled to the sidewalk, the faucets opened and the liquor permitted to run into the gutter. He was born in Worcester County, Massachusetts in 1812. He came to New

York in 1843, and soon achieved a front rank and a high reputation in his line of trade. The height of his head shows a strong moral development; Con-

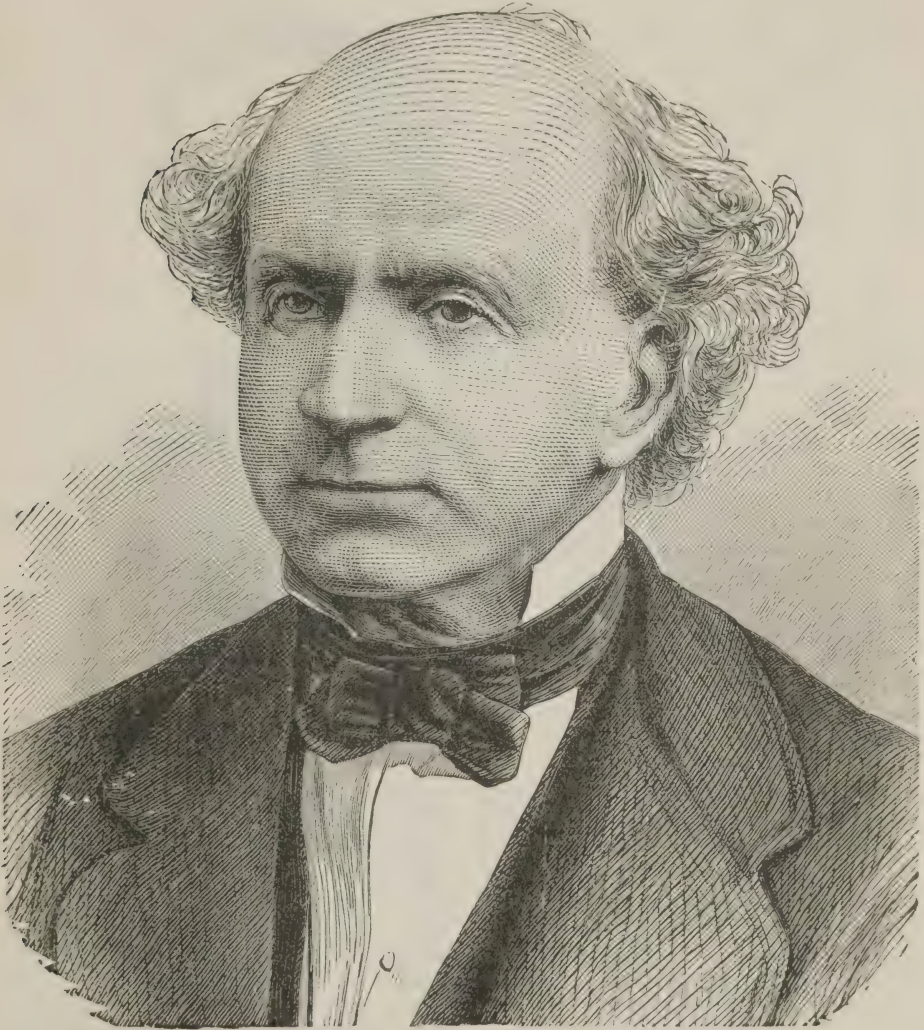


FIG. 112. HORACE B. CLAFLIN.

the facts of the cases which came under his scrutiny as a lawyer and as a Chief Judge of the Court of Appeals of the State of New York, of which he was an ornament. The height of his head shows a strong moral development; Con-

York in 1843, and soon achieved a front rank and a high reputation in his line of trade. Fig. 113.—The peculiarities of this head are height and length. The large perceptives across the brow gave him command of details in the

the facts of the cases which came under his scrutiny as a lawyer and as a Chief Judge of the Court of Appeals of the State of New York, of which he was an ornament. The height of his head shows a strong moral development; Con-

scientiousness was large, which made him hold the scales of justice even, and to regard life and conduct from an honest point of observation. That is an honest face; sincerity, integrity, definiteness and precision may be read in every feature of the intelligent face. Then the high top head shows the strong Conscientiousness, Firmness, Veneration and Benevolence, with Faith and Hope enough to believe in truth and follow after righteousness. The poise of his head shows not only Firmness but Self-esteem.

The side head was large enough to give him energy and thoroughness, but his propensities and selfish feelings were kept in subjection to his sound moral and intellectual judgments and the desire to do right, and the power to recognize right wherever there was a conflict of opinion, even though he might have a feeling favorable to one of the sides; he would listen to reason and reach honest and sound results. In his manners on the bench and at the bar he was courteous, dignified and kindly. His temper was always under proper restraint, but his opinions and purposes were definite and direct. He was regarded by the best people who knew him well as being pure in life and purpose and correct in all his plans, desires and practices, and an ornament to the elevated position he worthily filled.*

Fig. 114.—Mr. Conkling was born in Albany, N. Y., in 1828, and educated for the legal profession, and died in the City of New York in 1888, a victim of the great blizzard. He was robust, tall, broad, manly, had a fresh countenance, and full vigor of health, and he walked during that storm from lower Broadway four or

five miles uptown; he was strong and felt that he could do it, and some avaricious coachman demanded ten dollars to drive him up to his home, and his indignation at such extortion led him to tramp on; but the unac-



FIG. 113. HON. WARD HUNT.

customed struggle against such a wind in the severe cold weather excited undue action of the heart, and he took a cold in the base of the brain and became unconscious. He died in three or four days. There might have been slight apoplexy of the brain.

His dignified, strong and magnificent body, his handsome face and noble head would command instant respect anywhere, and his health was believed to be perfect. The quality of the organization was fine, amounting even to delicacy, showing uncommon sensitiveness and susceptibility and keenness of feeling which belonged to such an organization. In fact, the

face has almost a feminine look, and he inherited largely from his mother, acquiring instinct and intuitive genius as well as an ardent emotional nature. His phrenological developments also, in addition to the intuitive and im-

among his compeers as he did in statesmanship among statesmen. He dealt with original ideas, with solid premises and important consequences. His type of mind was more Websterian than any other statesman of his



FIG. 114. HON. ROSCOE CONKLING.

aginative faculties, show breadth of thought and comprehensiveness of mind, the logical and philosophical ability. Large Ideality and Spirituality shown in the upper temporal region evince imagination and scope of feeling and elevation of mind, from which his magnificent oratory received its lofty and brilliant touches. He was orderly in a high degree, and had eminent talent for mathematics; so, while his mind was ardent, impetuous and eloquent, it was endowed with exactness and absoluteness which sometimes seemed dogmatic.

He had strong Constructiveness, was a natural inventor, and had he been trained to architecture and engineering, he would have ranked

party. And, like Webster, he did not need to make the first or an early speech on some great subject; each could wait till others had ploughed and cross-ploughed the field, and then the plough of Webster or Conkling would leave in sight only the furrows which the great master minds had turned. They would plough all the other furrows under. Their arguments would stand forth regnant and masterful.

He had wonderful knowledge of men, and was said to be one of the best cross-examiners of witnesses in any of the Courts. He was exceedingly fond of approbation, very sensitive about the approval of the world, but he sought his success and his

honor by elevated and honorable means. His large Conscientiousness lifted him above peculation and above trick. He scorned to win a victory by what some men call tact, but preferred to bare his manly breast and with a logical hammer smite his way to victory, or fall in the encounter.

He was cautious and secretive, confiding in few men, and maintaining among the people at large a dignified reserve. He had large Combative-ness, and would promptly resent and resist insult and aggression. These gave force, courage and severity when excited, and the power to defend royally, or to assail vigorously.

He believed in calling things by their right names, and giving emphasis where the strong points are, though they may enrage his antagonist, or even render his own cause less acceptable.

His large Reverence gave him a dignified politeness among men and a reverent regard for sacred things. His Friendship was strong. No man was more loyal to his friends. His Language gave him uncommon command of words, and his fine imagination gave breadth of enthusiasm to his efforts; and when he finished a popular oration in the heat of a political campaign, everybody within the reach of his voice and in the sight of his manly vigor, whether he should vote with or against him, would feel that he was every inch a man, and that he had treated the subject in a manly and honorable way. And few men were willing to speak after he had spoken.

In 1858 he became Mayor of Utica, his place of residence. He served eight years as representative in Congress and fourteen years in the United States Senate, and in every position his talent and character made him a prominent figure.

He was a hard worker. When given a law case for argument, he made himself thoroughly acquainted with its details, and often surprised

court and client with the extent of his knowledge of technical details. He was particular about the sources of information and the authenticity of statistics, and in preparing for a speech or an argument these were his chief concern; the language he should use was generally left to the occasion. In private life he was a careful, temperate man, his habits being severely regular. He indulged a strong fondness for fruits while he eschewed spirituous liquor in general.

Fig. 115.—Miss Ingelow is an excellent specimen of a well-developed English girl, and has won her way as a writer of prose and verse to the admiration of the reading world. Her temperament is a combination of the Vital and Mental;—the expression of plumpness and smoothness indicating the Vital, and the fineness and delicacy, indicating the Mental, which give a good basis for mellowness of character and harmonious mental tendencies. The soft and smooth configuration of the face must interest the observer, while at the same time there is strength in the features;—there is a firm chin and a well-set, prominent nose, which exhibit anything but weakness. The finely-arched brows show practical talent, the fullness of the eye is expressive of language, while the development of the lower half of the forehead, and especially of the middle section, show memory and decided ability for literary work.

The region of the crown of the head is well developed and elevated, showing integrity, perseverance, self-reliance and a desire for the good opinion of friends. Whatever she thinks it is her duty to do is undertaken with earnestness and conducted with courage, talent and self-reliance, but her manners are gentle and her character is strong, steady and substantial. The fullness of the side head indicates a sense of the beautiful, an appreciation of the grand and a tendency to be prudent, mechanical, ingenious and guarded in her state-

ments and conduct. Her temperament and organization combine to make her an artist, to give her ability, æsthetic feeling and excellent taste. Her head is formed like

readers in America as well as in her native country, England, and her writings have obtained wide circulation. Her first volume contained the inimitable "Songs of Seven,"



FIG. 115. MISS JEAN INGELOW, POET.

that of a teacher, she can acquire knowledge, appreciate it and communicate it.

A fine temperament contributes its most valuable aid toward the balance of her organization. She is endowed with excellent vital stamina, and is not easily wearied by unexpected or protracted effort. She appreciates responsibility, and keenly feels the lack of integrity and the moral delinquencies of others. Her spirit is aroused quickly by indifference to the claims of duty and honor on the part of another, especially if the weak or poor are made to suffer.

A quarter of a century ago her name as a writer was familiar to

other of her works entitled "Monition of the Unseen," another, "Poems of Love and Childhood." She has also been a prolific writer of prose for the magazines, which have been collected and published in books, "Stories Told to a Child," "Sister's Bye Hours," "Studies for Stories," and others, which are excellent for the entertainment and instruction of children.

Her conversation, her writings and her general manners are calculated to impress others favorably in regard to her affection, her talent and character, besides they show a robust, healthy earnestness and sincerity which create an impression that is lasting as well as beneficent.

CHAPTER XIII.

QUALITY OR PERFECTION OF TEMPERAMENT.

IN the study of temperament the student needs to keep in mind the highest order or best quality of temperament to serve as a measuring rule by which to test the variations and shortcomings of different persons in respect to organic constitution. One phase of temperament will be strong, while other phases are weak, and the result shows eccentricity, by strong and weak points in juxtaposition in the constitution. In regard to strong and weak points in the character there is no question by anybody, and we know that temperament varies quite as much as do the dispositions.

Balance of temperament is very desirable, yet this term carries to a Phrenologist two types of meaning; a temperament may be balanced, and still all its factors be weak, and therefore balance of temperament does not make a man with small head and low type of development amount to much, even if his temperament is balanced. A marble that boys play with may be perfectly round and nicely balanced, but an iron-clad ship would laugh at its efforts of penetration. A head may be medium and balanced in temperament, and each temperament low in the scale, and though all the faculties are balanced and harmonious, the man will be mediocre in his scope and power of achievement. The head may be large or very large, the health good and all the temperaments harmoniously balanced, and then it is that a normal king of men is before us. There are some men with large heads, as there are horses and men and chickens with large bodies; but

there is not much snap and spirit and power in them. But a healthy constitution that is largely endowed in each of the departments of temperament will produce health and power, skill and success. And in proportion as these favorable conditions are present in a given individual, so will his talent and power of achievement be manifest. There are some men with splendid mental development; they are brilliant and far-reaching in the scope and elevation of their minds, but they lack in the vital and motive power, and, therefore, the mind is not backed up by vitality so that it can work strongly and long. A man with a twenty-four inch head and a predominance of the Mental Temperament, with a light frame and not very strong nutritive system, might be a splendid architect or accountant, or artist, and do magnificent work, but it would take him longer to accomplish a given amount on the same principle that it takes longer for a single gas-burner to boil a kettle than if there were a sufficient amount of flame to enwrap the kettle.

QUALITY.

Students of Phrenology are sometimes much puzzled in regard to the meaning which should be attached to the word "Quality" in connection with temperament or constitution. If we apply this thought of quality to material substances generally, it will cover more ground than mere fineness, and it means more than mere delicacy, softness and pliability. Quality is a generic rather than a specific

term. Softness is a specific term; hardness, toughness, endurance and strength are specific terms, and quality is the generic term and constitutes the embodiment of the whole of these. Timber may be fine-grained, but soft and weak. An article may have the quality of softness yet lack strength and power. When we combine all the conditions which go to make up the composition and substance of structures, and when we can put into anything all the elements which express desirable specific conditions, the sum-total is quality.

There is material as fine as that of which fiddle-strings are made, but it lacks strength, compactness, hardness and resonance. We can have bulk with coarseness, softness and flabbiness, and quality as applied to that would need the adjective low, coarse or soft to define it. Density in reference to material is one element of quality which embraces a large amount of matter in a given space; hence the timber called *lignum vitæ* will sink in water like a stone, while the least dense among the different kinds of timber will float like cork; and yet if cork were compressed to its smallest possible dimensions it might be as solid and heavy as *lignum vitæ*. Power is associated with the idea of density or compactness. Timber which grows compactly is strong, but timber which grows spongy and loose-grained is not strong. When, therefore, we can combine fineness with density and solidity we have a higher type of quality than when the material is soft and loose. If students of Temperament would apply some other term than quality by which to express the specific peculiarities, if they would say susceptibility, sensitiveness or excitability to define their meaning of certain conditions it would be more appropriate than the term quality; because as I use quality it means the total make-up, high or low, fine or coarse, strong or weak. We can have strength without coarseness and fineness without lightness, for

the hardest woods when polished make the most brilliant surfaces and are most delicate to the touch, and the same is true with metals; so I conclude that the word Quality as applied to the comprehensive definition of the human constitution must embrace sensitiveness, nervous susceptibility, stalwart enduring power, sturdy strength, and also the elements of vitality and nutrition, by means of which all the conditions and qualities of temperament are nourished, sustained, builded and kept in healthy action. Sometimes the muscular power is ample in fiber but it lacks in the elements of nerve force to give it power, and at other times the nerve force is very much greater than the muscular power, and therefore the nerve stimulus is not supplemented and put into action and execution by adequate motive power; in such a case "the spirit is willing but the flesh is weak," and in the other case the flesh is strong but the spirit does not inspire it to effort.

HIGHEST POSSIBLE QUALITY.

If the reader can imagine a human being as tall and as large as a healthy, normal human being might profitably and properly be, with a strong development of every temperament, including enough of the Vital to generate all the steam which could be used to advantage, enough of the Motive temperament to give that vitality impetus in the sphere of achievement, and enough of brain to compass the whole realm of knowledge in as high a degree and wide an extent as ever has been done by special individuals, he would verily be in the presence of a son of God, a man or a woman in all the plenitude of skill and power and wisdom and health; and such a person would represent the possibilities of human organism, a grand human constitution, complete and ample in all its parts and factors, wise in the acquisition of knowledge, skillful and efficient in its treatment and use.

If such a person could be presented

having the logic of Bacon; the imagination of Shakespeare and Milton or Byron; the ambition of Cæsar; the intensity and prowess of Alexander; the inventive skill of Watt, of Ericsson or Edison; the eloquence of Cicero, of Burke or Beecher; the memory of Cervantes; the bravery of the leader at Balaklava, with the love of Pythias, with the art of Michael Angelo, with the sympathy of Howard, and the pious fervor and gentleness of Fenelon,—combine all these higher excellencies which have been developed in human experience, and add the vocal power of Jenny Lind or Patti, of Sims Reeves or Campanini, and we would have a personage which common people would worship, if they could, by any possibility, for one moment appreciate the amount of the elevation, excellence and power of the personage before them. Thus we get a dreamy appreciation of the possibilities of human organism. If all these high attributes could be concentrated in one person, we would then have the perfection of development, combining the highest strength, health and wisdom of manhood, the subject of our study and culture. And when one thinks of such a being, with such an origin and with such a destiny, he can be compared with nothing now on earth.

When the devout Psalmist was studying the objective realm of knowledge, and looked up into the glowing heavens, he was led to exclaim: "When I consider the heavens, the work of Thy fingers, the moon and the stars which Thou hast ordained, what is man that Thou art mindful of *him*, and the son of man that Thou *visitest him*." Then, turning his thought within, and taking a subjective view of life, and time, and worlds, and man, and lifting himself up in this higher study, his spiritual senses all aflame, he utters the reverential exclamation, "Thou hast made him a little lower than the angels, and hast crowned him with glory and honor!"

As such human perfection is not yet to be expected except as the result of

ages of hereditary influences and culture, we present several portraits of persons of varying quality and temperament as subjects of study, and for that purpose we refer the reader to Chapter VII, where the study of "Temperament" is introduced, and also thenceforward to all portraits and discussions until we shall have completed what we may incorporate in "How to Study Strangers."

Fig. 116.—In this large, beautiful and massive head and face of Fitz-Greene Halleck is shown a modest son of genius, who had excellent gifts. In a line of business he spent many years of his life as an accountant in Jacob Barker's banking house in New York, and afterward as confidential assistant of John Jacob Astor in his enormous business, remaining with the latter until his death, which occurred March 29th, 1848.

He will be known to fame and to the future for his poetical works. In respect to Mr. Halleck, it was said by a witty critic that his greatest defect as a writer consisted in the fact that he wrote so little. He was born July 8, 1790, at Guilford, Ct., and after Mr. Astor's death resided at his native place and died there Nov. 17, 1867.

In addition to his business vocation he found time to do considerable literary work.

He wrote an elegy on the death of his gifted friend, J. Rodman Drake, which was published in 1820. It was simple, eloquent, pathetic and full of natural genius and tenderness, containing the oft quoted lines:

"None knew thee but to love thee,
None named thee but to praise."

Mr. Halleck is most widely known and admired for his poem, "Marco Bozarris." This has been made the subject of recitation in schools for the last sixty years; and, though, when well recited there is nothing that can surpass it, when it is read or recited by a stalwart young man without culture or training in elocution, and whose rough and earnest voice is

not yet settled in its manly tone, it loses all its beauty in the boisterous, torrent of force, for instance, in the noted lines:

He woke to hear his sentries shriek:
To arms! they come! they come!
The Greek! the Greek!

And the other famous lines:

"Strike—till the last armed foe expires," etc.

have often been read in such a shocking way that if the author could have heard such perpetrations he would have stopped his ears or fled before such blows.

This poem was popular, it stirred wonderfully the public pulse, and fiery youth rejoiced in the enthusiasm it awakened, and, although it is a war poem, nothing in that field has ever been written in the English language that is better, taken as a whole.

His *Apostrophe to Death* in this poem is a wonderful piece of work. What could be more pathetic and more vivid than this:

Come to the bridal chamber, Death!
Come to the mother when she feels,
For the first time, her first-born's breath:
Come when the blessed seals
That close the pestilence are broke,
And crowded cities wail its stroke:
Come in consumption's ghastly form,
The earthquake shock, the ocean's storm:
Come when the heart beats high and warm,
With banquet-song and dance, and wine,
And thou art terrible! the tear,
The groan, the knell, the pall, the bier,
And all we know, or dream, or fear,
Of agony, are thine.

But, to the hero, when his sword
Has won the battle for the free,
Thy voice sounds like a prophet's word,
And, in its hollow tones, are heard
The thanks of millions yet to be.
Bozarris! with the storied brave,
Greece nurtured, in her glory's time,
Rest thee, there is no prouder grave,
Even in her own proud clime.
We tell thy doom without a sigh:

For thou art Freedom's now, and Fame's,
One of the few, the immortal names,
That were not born to die.

In this fine head and face are seen the indications of a highly wrought mental temperament; and yet, there is a basis of the Motive. The strong features, the high head and the ample altitude of the person evince power, but the element or quality called fineness or sensitiveness would in him take the lead.

What a wonderful intellectual development this is:—how ample the expansion of the forehead, how broad the temples, especially the upper section where Ideality and Mirthfulness are located. He has been criticised for his wit and for the playfulness of his spirit, but "*Marco Bozarris*" has sobriety and sincerity enough. His large Benevolence gives width to the top of his head in front, and the poise of his head indicates large Self-esteem; but his was the Self-esteem that retired from noise and clamor, and led him to stand aloof from the common phases of rude life, and to have a few choice friends which he cultivated for their delicacy and refinement of manner and thought.

If he had had more than a common school education; if he had been early cultured in the best schools so that he could have been ushered into the literary world at an early age and thus been given by culture the direction of scholarly activity, instead of being for forty years confined to the use of ledgers and the study of pounds, shillings and pence, he would then, doubtless, have distinguished himself by a larger amount of intellectual and literary work.

W. Weidemeyer says: "He was a handsome man, with benign features, illumined by a pair of sparkling eyes, and with the beauty of intelligence stamped on his countenance; courtly manners, quiet observation, and habitual reticence were his outward characteristics.

"Treating our author's poems col-

lectively, we find their wording natural, precise, and copious; the phraseology exact, clear, and compact—smooth or forcible as the subject may

ring to it. Seldom do we encounter expletives, stilted expression, or bad metaphor, and similes he used sparingly."



FIG. 116. FITZ-GREENE HALLECK.

require; the sentiment noble and aspiring, never misanthropic, mawkish, didactic, or metaphysical; the rhythm melodious with a clear and manly

Halleck's temperament with high quality in the direction of the mental side of development gave him a marked position in the direction of mental

effort, while the quality of endurance, hardihood and concentrated earnestness and energy would be generally recognized in M. Eiffel, Fig. 117.

Fig. 117.—M. Eiffel, the celebrated French engineer, has a face and head which indicate power. The head is broad and massive, the features are heavy and firmly set, and the thought

eye view of the beautiful city. That thought was copied but vastly improved upon in the great Ferris Wheel at the Columbian Exposition in Chicago in 1893, which, by its revolution, carrying car loads of people at a time, gave them an opportunity of rising in the open air to an elevation of two hundred and fifty feet, and then of



FIG. 117. M. EIFFEL.

of courage, force, fortitude and enterprise seem related with what he is naturally inclined to do. He has become widely known among the engineers of France, and is President of the National Society of Engineers.

His great work which has especially attracted the attention of the world is the Eiffel Tower, a marked feature in the great Paris Exposition of 1889. It was a thousand feet high and was erected in the heart of Paris, was ascended by means of elevators and gave the inhabitants and visitors an excellent opportunity of taking a bird's

gradually coming to the earth on the other side of the wheel. One revolution occupied about half an hour and gave visitors an opportunity for surveying leisurely the Fair grounds and Chicago, and it can ever be a perpetual pleasure to the public as it can be enjoyed with perfect safety.

It will be noticed that his head is broad through the region of the temples where Constructiveness is located:—it is simply developed in a way which gives a mathematical type of thought. It is largely developed across the brows, in which region the

organs of perception and judgment of proportion are situated. The organs which give memory are located across the middle of the forehead, and they are full and amply developed, and enable him to carry in his thought vividly and continuously all the facts which culture and experience have given him.

His intellect resembles that of his mother—it is intuitive and rapid in

idly which comes from that development, and then he has the masculine courage, force and fortitude which belong to the middle section of the head and the face.

He looks as though he would make a good military leader, and especially a courageous and masterful engineer.

Fig. 118.—In this portrait we see refinement and harmony of constitution with a temperament favorable to



FIG. 118. CHARLES COLLINS.

its action. We think that the middle of his face and the middle of his head resemble his father. The nose is too large for the forehead and the cheekbones are too broad and ample for the upper and lower sections of the face, hence we suppose that the middle section of the head running over in a belt from one ear to that of the other, and the middle section of the face, from the eye to the mouth, belong to the father. Hence he has the intuitive quickness of thought pertaining to the mother and the power of gathering knowledge rap-

idly, practical ability, and especially is he strongly marked in Constructiveness and Ideality. So he was a natural inventor. The face has great delicacy combined with a good degree of strength; an expression of sincerity, energy, earnestness, sympathy, prudence and power are all evinced in that head and face. He had capacity to gather facts, and the reasoning power and the inventive talent combined to arrange them to the best advantage, so as to get the highest and best use of facts. He had large Order, good Calculation,

and also the musical sense. He had the signs of excellent memory, fullness through the middle section of the forehead is manifested, while the lower part, which gathers knowledge, and the upper part, which knows the why and the wherefore respecting knowledge, gave him brilliancy of intellect, accuracy of thinking and acting, and the power of combining all his knowledge in an effective way to secure decided success.

He was chief engineer on the "Lake Shore Railroad," and was well fitted for such a position. He had signs of a strong will, steadfastness, determination and firmness of purpose. He was not arrogant and not given to sudden impulses of passion. He carried his intelligence with modesty, but expressed his thoughts with definiteness and clearness. Had he been devoted to literature he would have made his mark in that direction. His Language was more accurate than copious, more specific in its expression and thought than ornate or fluent. He would have excelled as a manufacturer, as a merchant or in the realm of science. He was a natural organizer and had the ability to do good work in any field where his experience gave him opportunity. He was educated as an engineer at the Rensselaer Polytechnic Institute, in the State of New York. He was employed in engineering on the Boston and Albany Railroad; the Cleveland, Cincinnati and Columbus Railway, and in the construction of the Painsville, Cleveland and Nashville road.

This portrait is introduced to show harmony of temperament and of mental development and shows a great deal of refinement and susceptibility joined with vigor, earnestness and power. There is an indication of a high quality of constitution.

He was born in 1821 and died in 1876 from overwork and anxiety.

Fig. 119.—This gentleman represents in the main a well-balanced temperament, with the Vital a little in predominance. There is a good de-

gree of the Motive temperament indicated by the strength of the features and the height of the head at the crown, and the Mental temperament is well represented, but it is not in excess. The Vital shows fullness of face, plumpness of figure and fullness of form. This organization would be ardent in its efforts and purposes, and at the same time steadfast and strong. In the development of the forehead we find a predominance of the observing faculties and an excellent development of the organs of memory,

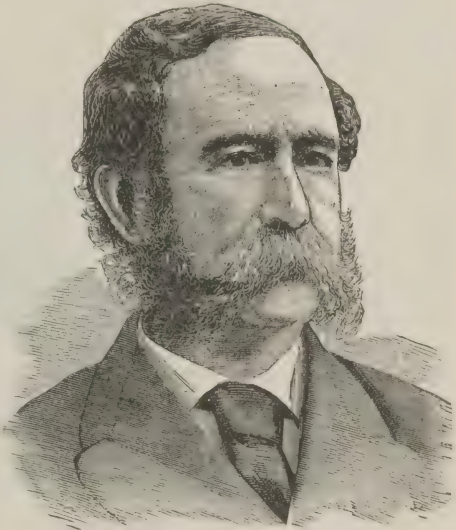


FIG. 119. GEN. WADE HAMPTON.

Eventuality, Locality and Time; while he gathers knowledge rapidly, he retains it easily, and the reasoning intellect, chiefly developed in the faculty of Comparison, enables him to use his knowledge to a good advantage and apply it to affairs of life practically with decision and readiness. He is not so much inclined toward the calm, cool, thoughtful, philosophical mode of work mentally as towards the intuitive, the practical and earnest. He is not very large in the faculties which give policy, prudence, economy and invention. He needs a little broader head to make him wise in secular matters and smooth and guarded in his statements and manifestations.

Fig. 120.—We present in this portrait the President of the Royal Society of Art in England, an organization representing whatever is delicate, refined, chaste and cultured in the realm of art and literature. He may be said to have a high quality of organization and an even development of the organs of the mind and body.

He has fineness and sensitiveness of quality, and a considerable degree of intensity. All his features show marks of refined culture; the nose is classical, the lips are full, but not indicative of the voluptuous type. He has a full eye, showing amplitude of Language and ability to express himself easily. His Order being large, he is systematic; Comparison being strong, he inclines to criticise and discriminate and finish nicely whatever he does. He has a high order of the Mental temperament, and enough of the Vital temperament to give it smoothness. Harmony seems to pervade his whole being, as well the Physical as the Mental, and consistency of character would naturally be the outcome. His face, contrasted with that of Eiffel, is most marked. There is a lack of the ruggedness which the Motive and Vital temperament impart. Yet Sir Frederick is not lacking in strength and force, but it is not of the heroic type; it is not force that seeks an outlet and must have it. He has a tall top head, which gives him a moral and ambitious type of feeling; it gives him elevation and dignity without arrogance. Hence, he has a high sense of character; he is mindful of every form of courtesy and propriety which

belong to culture and good society, and a feeling of sensitiveness and refinement leads him to keep aloof from whatever is rugged, hard and coarse. Such an organization belongs in the world of art and literature.



FIG. 120. SIR FREDERICK LEIGHTON, R.A.

He would be a gardener rather than a farmer, a cabinet-maker rather than a carpenter, and an artist rather than a mechanic, and would be inclined to poetry and music rather than to didactic prose.

Fitz-Greene Halleck has a fairly balanced temperament with an excess of the Mental; Eiffel shows the Motive in about equal prominence; Collins shows the Vital and Mental in the lead; in Hampton the Vital and Motive seem stronger than the Mental; in Leighton there is a high order of the Mental with the Vital and Motive following as a background of sustaining power.

CHAPTER XIV.

DIVERSITIES OF TEMPERAMENT AND CHARACTER.

Fig. 121, Mrs. Celia Burleigh.—This gifted woman was widely known as a writer and speaker, and all who have heard her as a lecturer or as a

profitable, as manifested through her writings, or through her magnetic presence.

That open, earnest, honest face



FIG. 121. MRS. CELIA BURLEIGH.

preacher, or have read any of her spirited utterances, in either of these capacities, will remember it as a rich treat, and will recognize the fact that her spirit was companionable and

indicates sincerity and earnestness, patience and faith. She was a friend of humanity, and labored to promote its happiness. Her intellectual vein was keen, her moral power was defi-

nite, influential and strong. She grasped truths and merged them into a logical form by a kind of intuition, that made it doubtful whether it was through logic or intuition that she reached the conclusions. She appreciated truth in any form, trusted, loved and aimed in every way to promote it. She had a loving, companionable spirit, was willing to defer her own pleasure for the comfort and happiness of others, and not unfrequently divided what she had with those who needed it more than she did; and sought out occasion among the poor for opportunities to do good.

She was sensitive in her moral qualities, keenly appreciative to reputation, and was awake to everything that belonged to tenderness and sympathy. Her fine quality of organization rendered her keenly alive to all that was joyous or otherwise, which made her liable to suffer more than she enjoyed, because she had such a living sympathy for suffering that she was attracted by it, and thus she bore a burden which was constantly wearing upon the nervous integrity.

The following sketch is from the able pen of Mrs. Lyman, and is a just tribute to a gentle and brave woman:

Mrs. Celia Burleigh was born in the year 1827. The circumstances of her early life were not such as seemed favorable to the cultivation and development of the noble and beautiful talent with which she was endowed, and though she promised some of her intimate friends an account of her early life, yet so trying were its experiences that she could not lift the curtain on the scenes she had passed through, even that her friends might know what she had endured and done. But from all her trials she came forth a noble, pure, philanthropic woman, able to sympathize with the sorely tempted, to encourage the struggling and to speak words of cheer and consolation and stimulus to

her sisters who were wrestling with problems in practical life which she had wrestled with and conquered.

Mrs. Burleigh was thrice married. Her last marriage with Mr. William H. Burleigh was very felicitous. In him she found an appreciative no less than a kind and affectionate husband. Between the intervals of her first and second marriages she wrote for the press under the name of "Celia," and a volume of her poems was published, which was very favorably noticed by the critics. Both before and after her marriage with Mr. Burleigh she made the acquaintance of many women of culture and talent, among whom she at once took a prominent place, and found, at last, congenial association and that inspiration which, if she had enjoyed it in early life, would have enabled her to make a brilliant mark in the world of letters. Both before and after her marriage she was identified with the women's movement, was known as a suffragist, a reformer and a writer of no little ability. She took an active part in organizing the Women's Club in Brooklyn, N. Y., a purely literary association, composed of some of the best cultured women of the day, of which she was chosen the first president. She was also a prominent member of Sorosis, and the success which attended her first efforts at speaking there led her to feel that she could work effectually for good in that way. Though her lectures were received with great favor, it was not till after the death of her husband that she seriously thought of a professional career. The more she wrote and spoke the more evident it became that she was elected to the ministry by the quality and working of her mind, and that she had a call to preach was clear from the call that so many had to hear her. In 1871, after much hesitation, she accepted a call to a parish in Brooklyn, Conn., and was ordained as a pastor. At last she felt that she had found her place, and worked with brave and beautiful

fidelity to her trust for a little over two years. Soon after her installation the disease of which she died began to develop itself, but she enjoyed her work so much that she kept at her post until forced to retire. "I had just found my place," she said, "I had been seeking so long that it seems very hard to go away from it so soon."

She placed herself under medical treatment at the Home, at Dansville, Livingston County, N. Y., but for her disease (cancer) there was no cure, and she was removed to the care and loving ministrations of friends in Syracuse, N. Y., where she died, July 25th, 1875.

Mrs. Burleigh was tall, graceful and dignified in her look and manner. Her face was an index to her soul, and no one could look upon it, so full of human sympathy, of generous enthusiasm and of faith in men and women, and not be drawn towards her. The fascination she exerted upon persons of her own sex was wonderful. She was not an original or a deep thinker, but she had a remarkable ability for assimilating the best thoughts and sentiments of others, and of seeing and declaring the natural consequences of right and wrong-doing in individuals and States. As a speaker she was simple and modest, but impressive and thoroughly in earnest, appealing to those great reserves of moral energy in whose existence in every soul she had unbounded faith. Mrs. Burleigh was for several years a member of the Second Unitarian Church, of Brooklyn, N. Y., and the church of which she was the beloved pastor was of that denomination. She has left many warm and loving friends, and though she has ceased from her labors, the influence of her noble, womanly utterances, her brave example, and the heroism she showed in overcoming to the end, keeps her memory green in the hearts of all who knew her.

Fig. 122. Miss Thompson is a healthy, vigorous study, and from the outline of her head and face we judge she resembles her father more than her mother. She appears to have, however, her mother's instinctive intuition, but her father's will-power, force, independence and other traits of character. Below the eyes the face is masculine, but above the eyebrows the forehead is feminine, dealing in facts and details, and giving to the mind a sharp and keen relish for the things which belong to her surroundings; also quick perception, prompt decision, ready criticism and definiteness of thought and purpose. If the fashion of dressing the hair were such as existed when her mother was young, laid smoothly to the head and giving adequate expression to all the phrenological developments, it would be easier to indicate to the observer the strong characteristics, which are so readily seen in the face.

She early reached a mark which signalized her career in the world of art, and her choice of subjects, being of a military and national character, has probably had a great deal to do with her popularity. Nevertheless, to win attention, they must be treated with taste and skill, which must come from strength of character joined with artistic capability.

Her head is broad, her face strong and the crown of the head high, and the influence of these developments doubtless led her to select subjects such as "The Roll Call," "Charge of the Light Brigade," subjects more likely to invite the pencil of the masculine rather than of the feminine artist. Hers is a courageous and critical nature, and when aroused by that which inspires her enthusiasm, she treats the subject with vigor, and through her artistic skill she manifests these strong points of character. Though work of hers had been exhibited in the Royal Academy Exhibition, much attention was excited by the exhibition of her picture entitled "Roll Call, After an Engage-

ment in the Crimea." This picture found a place on the walls of the Royal Academy in the Spring of 1874, and the vigor of the composition, especially the treatment in the draw-

Her large Perceptives tend to make her interested in her surroundings, and her strong courage, executive force and self-reliance combine to give her ability to express power



FIG. 122. MISS ELIZABETH THOMPSON, PAINTER.

ing of the horses and the management of the color, were too expressive not to command notice. The Prince of Wales and the Duke of Cambridge were much pleased with the picture, and commented openly upon its merits, and their royal approval helped to make Miss Thompson famous.

The temperament has enough of the Motive or the bilious in it to give strength and positiveness to her entire character.

in her artistic work:—and when feminine sentiment and sympathy combine with masculine vigor and force, woman is able to evince elements in literature, art, mechanism and in oratory which command attention, as is shown in the work of Harriet Hosmer and Rosa Bonheur in art, Maria Mitchell in astronomy, Madame De Stael and Mrs. Stowe in literature, Charlotte Cushman and Fanny Kemble Butler in the drama, or Louise Kellogg and Patti in music.

Fig. 123, Mrs. Clemence S. Lozier. —This remarkable woman was distinguished for a constitution of high quality, combined with great endurance. She was amply endowed with the Vital and the Mental temperaments. The face was full, the head large and the forehead especially

flinching from duty, or retreating from effort which was necessary to secure the success of her purposes, and to work out the good she desired to do in behalf of others.

She had large Order, which gave her system and regularity of action. She had large Mirthfulness, which



FIG. 123. CLEMENCE SOPHIA LOZIER, M.D.

broad, high and massive, showing varied and vigorous talent. The top head indicated a great deal of moral power, integrity, steadfastness, reverence, hope and faith. She was remarkable for her agreeableness of manner and for the smoothness and pliability of her spirit, while at the same time there was a steady strength which enabled her to lead and govern those who came within the sphere of her influence. She made friends with everybody, and yet there was no

brightened her countenance and cheered her way in her intercourse with the world. Her logical power was such as to qualify her to plan her course wisely, and she had an excellent memory which enabled her to carry in her mind the knowledge she possessed, and she had great facility in imparting her knowledge in an agreeable and thorough way, and was thus a natural teacher.

Those who had the pleasure of her acquaintance, and who enjoyed her

confidence and affection, remember her for the traits which are domestic, social, loving and good.

We derive our biographical facts from a memorial pamphlet prepared by her friends, which we are permitted to use.

Mrs. Clemence S. Lozier, M.D., was born Dec. 11th, 1813, in Plainfield, N. J., and was the youngest of thirteen children.

She was an orphan at the age of eleven years. Her early education was acquired at the Plainfield Academy, and in 1829 she married Mr. Abraham W. Lozier, an architect and builder, of New York. Her husband becoming an invalid, she opened a school for young ladies in 1832. This she conducted until 1843.

Soon after the death of her husband she associated with Mrs. Margaret Pryor as a visitor for the Moral Reform and Female Guardian Society, now known as the Home for the Friendless. She was also one of the editors of the *Moral Reform Gazette*. Her attention had early been directed to the study of medicine, by the fact that several of her relatives were physicians, and her tastes and inclinations led her to desire a medical education for herself.

In 1849 she attended lectures at the Eclectic College, in Rochester, N.Y., and was graduated with the highest honor of her class from the New York Central Medical College, in Syracuse, N.Y., in March, 1853, as no college of either of the dominant schools at that time permitted women to study medicine.

In 1853 she began to practice in this city, and continued active in her profession until her death.

Starting from a laborious work among the poor, she soon entered upon a most extensive professional practice, and such was her skill, in both medicine and surgery, that in 1864, and several years following, her practice returned her over \$25,000 yearly. For some years she had

the field, where the services of a skilled female physician were required, almost to herself, as there were but few, and none so distinguished to share it with her.

She not only became noted as a successful obstetrician, but attained distinction in general surgery, especially in the removal of tumors, often, where the ligature did not promise success, resorting to the surgeon's knife or the ecraseur; frequently performing grave, capital operations without the aid of counsel, preferring to rely entirely upon her own skill. Dr. Valentine Mott declared that many a surgeon would have shrunk back appalled at the thought of performing some of the operations she undertook without dividing the responsibility with another.

Few have had such marked success in the treatment of diseases of women, and few practitioners have derived such pecuniary benefits. Her intuitive discernment, quick sympathy, gracious tact and gentle patience, added to her inherited talent for the practice of medicine, fully fitted her for her profession.

On April 24th, 1888, Dr. Lozier, as Dean, delivered an address at the commencement of the Medical College, and on Wednesday, the 25th, attended the annual meeting of the Alumnae Association, of which she was an honorary member.

On Thursday, the 26th of April, she was also engaged with friends and patients. In the evening she complained of fatigue and retired to bed early. About nine o'clock she summoned her maid, telling her that she feared an attack of angina, having suffered from angina pectoris for some years. She was very restless and uneasy, until ten minutes after ten, when she suddenly ceased to breathe. She passed out of this life without a pain or a struggle, leaving a thousand grateful and tender memories among those who had been benefited by her skill and guided by her wisdom.

Fig. 124, General Count Von Caprivi, the German Chancellor, was born in Berlin, Feb. 24, 1831. He entered the army in 1849, and was made a captain in 1861. In 1883 he was made

ments. His features, being small, show but a medium degree of the Motive temperament. The front head shows abundant intellectual sagacity, and power of analysis and criticism,



FIG. 124. GEN. GEO. VON CAPRIVI, GERMAN CHANCELLOR.

Secretary of the Navy and Vice-Admiral, and made many improvements in the service.

William II. reorganized the Navy Department in a way that Caprivi did not like, and as a consequence he resigned and was given command of the Tenth Army Corps. By an unexpected stroke of fortune he received the Chancellorship on May 20, 1890, when Prince Bismarck retired. He was rewarded with the title of Count in December, 1891.

He is a man of large frame, good stature, ample vital power, and has a large and well balanced brain. Thus he has the Vital and Mental tempera-

the ability to gather knowledge accurately and to keep it ready for use. Then he has large Comparison and Causality, which enables him to analyze subjects, and to theorize soundly and wisely upon the facts that he acquires. He is exceedingly broad in the region of the temples, which indicates inventive, creative ingenuity, ability to comprehend affairs en masse or in detail, to appreciate the relations of forces to results, of things to their uses, and to understand complication without confusion, just as a skillful weaver will look at a piece of complicated textile fabric, and at once see how he can reproduce it in the

loom. He has also large Ideality, which is connected with Constructiveness in its action, hence he has invention, power to create resources from given conditions, and if he shall not prove to be a master in diplomacy, as he is doubtless a master in the evolution and control of troops, we shall be disappointed.

We infer from the development that General Von Caprivi has excellent financial capability, and would show skill in managing the revenues of a nation, making what is drawn from the people in the way of taxation subserve the public interest. As a business man he would conduct manufactures and workshops in such a way as to make good articles at as small expenditure of capital and labor as any other man in such lines of business. He is a man of wonderful order, systematizes everything and makes all act together like clockwork. He has refinement and good taste, a ready sympathy for those in trouble, and a strong tendency to spirituality and religious feeling. He ought to be an accurate talker so far as definiteness, clearness and vigor of style are required. The head is decidedly broad in the central region, and we credit him with force, courage and enterprise, and at the same time give him a good degree of secretiveness. In affairs of state he would be able to act with proper reticence and concealment when necessary. If we had a side view of the head, showing the back part, we could judge better of his social and aspiring disposition. As it is, from the attitude and expression, we are inclined to regard him as a man of ambitious and dignified tendencies, aiming to keep himself clean, upright, and moral in his work and demeanor. He seems to be hopeful, firm, honest and thorough. There is less of the sternness of expression, and of that which may be called roughness and hardness of feature than have been attributed to his great predecessor, Prince Bismark.

Fig. 125.—Mr. Girard, the richest man in America in his day, whose wealth was entirely self-made, as a crowning act of his life founded and endowed the Girard College in Philadelphia. He was born in Bordeaux, France, May 21, 1750; settled in Philadelphia early in life, conducted an importing and banking business, bought real estate and improved some of it, and died in that city Dec. 26, 1831, leaving an estate at the time estimated at thirty millions, since greatly enhanced in value.

He had a compact, wiry organization, fine intellect, great Order, Calculation, and business talent; was independent in feeling; very firm, and master of all who came under his influence. He began life as a sailor, and became the richest man in America, and he was distinguished for his excellent sense and unflinching integrity.

ANECDOTES OF MR GIRARD.

We have been told that Mr. Girard would plan twenty brick houses, describe the style and dimensions of everything, make out their specifications and estimates for material, and so carefully and accurately would he do this, that a cart at one load would carry off all that was valuable which might be left over from the whole work. A man applied to him for work; he called him to his rear window and pointed out a pile of brick in the yard, and told him to move them to the opposite corner and pile them up nicely; the man asked for neither hod nor wheelbarrow, but laid them on his arm, finished his work, and reported. Mr. Girard went to the window and saw it was done, and told him to move them back; and thus he ordered him to do until night. When he came the next morning, Mr. Girard having found in him a man that would obey his orders without question, and do his work patiently and well, placed him where he could have training in his general business, and in a few months had

charge of all his outdoor work, the man who had been so employed having given notice that he would like to terminate his engagement. He having thus tried, perhaps a dozen times, with failure, found a man that

shop, at which you had better apply." He did so, made a contract for two years, and when he had fulfilled his indenture, he brought that back, and showed is as "satisfied." "All right," said Mr. Girard, "make two



FIG. 125. STEPHEN GIRARD, MERCHANT AND MILLIONAIRE.

ne liked, who would obey and ask no questions.

Mr. Girard indentured all his clerks in his warehouse and bank. One had been earnest and faithful, and had worn himself down in health; he came and informed Mr. Girard that he believed his indenture was completed. The old gentleman hauled out the paper, studied it carefully, and wrote the words, "Faithfully fulfilled" across its face, and signed his name. The young man asked, "What had I better do now?" "You had better go and learn the cooper's trade; and, at such a place, there is a

barrels for me and bring them here." He went back to the shop and made two barrels, brought them on a wheelbarrow and rolled them in. Mr. Girard turned them over and over, studied them with a sharp eye, and was satisfied; asking the price, was informed that they were worth a dollar apiece; he said, "Henry, step up to your old desk and make out the bill and receipt it," which being presented and carefully scanned, Mr. Girard drew him a check for \$20,000. The young man then said, "What shall I do now?" "Go up to such a store and hire it and go into such a

line of merchandise, lay out \$10,000 for goods, deposit the balance in my bank." The young man had learned a good *trade* and had gained robust *health*, and was then ready to go into business for himself. Those who did right by Mr. Girard, liked him; those who tried to be unfair, incurred his ill-will and perhaps hated him.

Stephen Girard had seen so much of flattery that he prided himself in not being susceptible to flattery. A friend and admirer of his, talking with another man, said that there was one man in the world that could not be flattered. The man offered a wager that he, being a fine conversationalist, could flatter even Girard. They paid him a visit; Girard's friend introduced the stranger, who entered into an easy and appropriate conversation and gradually culminated it at a point which Girard saw was intended as a flattery to him, and he frowned upon it. The man begged pardon and started on another artful circuit; he talked like a Chesterfield, charmingly, and as he was about to culminate his discourse in flattery Girard saw it and frowned again. The man tried it a third time with the same result, and then straightened up and said, "Mr. Girard, I hope you will pardon me. This friend of mine, and your friend, in conversation insisted upon it in contradiction to my expressed opinion, that there was one man in the world who could not be flattered, and I laid a wager that I could flatter you, and I believe myself to be a good talker. I have exhausted my resources, and I give it up, for I find, Sir, that there really is one man in the world that cannot be flattered," and Girard tilted his head back and to one side and smiled; he saw in the stranger's face a look of triumph and appreciated the fact that he was flattered by the thought that he could not be flattered, and they hurried out of his presence to avoid an outburst of wrath.

Mr. Girard was eccentric and erratic, but always sensible and just.

Philadelphia bristles with anecdotes respecting his peculiarities, one of which is too good to be lost.

In his day the Methodist church was not very wealthy, and in a new district of the city a society desired to build a house of worship. They called on Mr. Girard; he considered their poverty and gave \$1,500. A Presbyterian church desired to build, and Mr. Girard was called on for assistance, and he drew a check for \$500 and handed it to the man, who said: "Why, Mr. Girard, you gave to the Methodists \$1,500, and we supposed you would give us an equal amount." "Give it to me," said Mr. Girard. The man handed him the check; he tore it up and silently pointed towards the door, and the man left.

Still later a Quaker society desired to build a new house better than the little one they occupied, and one of the brethren called on Mr. Girard, stating what they were trying to do, and that they thought he would perhaps be willing to give them something. He drew a check for \$500 and handed it to the brother, who took it and, without looking at it, folded it and put it into his pocket. "What!" exclaimed Mr. Girard, "you do not look at my check?" "Friend Stephen" answered the brother, "what thee does is satisfactory without my inspection." "Give me zee check," said Mr. Girard. The Quaker handed him the check, and Mr. Girard then drew a check for a thousand dollars, handed it to the brother, who again folded it without looking at it, and put it into his pocket. "You do not look at zee check?" reiterated Mr. Girard. "No, Stephen," said the Quaker, "it is thy work, thee does it to suit thyself and it suits us." "Give me zee check," said Mr. Girard. The Quaker took the check out of his pocket and handed it to Mr. Girard, who then drew one for \$1,500, and gave it to the brother, who, thanking him, treated it in the same way as he had treated the others, and then Stephen let him go off with it.

CHAPTER XV.

PERSONS OF EMINENT SUCCESS A PUBLIC BENEFIT.

IN every age a few persons by force of genius, talent or powerful character, rise above the level of the rest and make themselves conspicuous marks of historic interest, and masterful benefactors of their race. Before the modern craze for high houses which piled up structures in cities twenty stories high, the church spires were the first objects seen of a distant city,—and the men of eminent capabilities in those cities, like the spires of the churches, were alike elevated in public esteem.

Greatness is not all comprehended in the word talent, which refers to the intellectual and to the æsthetical elements; nor is it due to mere physical strength, although some become notorious through it, like the athletic giant or the master bullock in a drove of buffaloes. Greatness is sometimes attributable to superior moral elevation, and sometimes, too, greatness means capability in a practical way. In other cases the governing spirit, the masterful energies involving courage, pride, determination and thoroughness, make a man conspicuous. Sometimes, too, the social affections wed a man to the world's admiration, and make his name immortal. Greatness, therefore, may have diverse sources of manifestation.

No field of contemplation is more interesting and pleasant than that of biography, as it relates to the men and women of the world who have made themselves known for useful and dominant qualifications in the business world. It is interesting for the great masses to recognize and to

render a kind of submissive homage to the power in some men that can push civilization into the wilderness, that can span rivers, traverse oceans and control mills and machinery, and so widen human prosperity and enlarge human achievements.

Fig. 126, Cornelius Vanderbilt, was called the "Railroad King," but previously, while he was devoting himself to ships and water navigation, he acquired the name of "Commodore," not by the regular line of promotion, for he promoted himself, and he was commodore before he was 18 years old. He rode the bay and harbor in darkness and in storm when others dared not venture forth, and later as a steamboat man his talent and pluck made him seem a commodore. It is doubtful whether this country has ever raised a man who had as much comprehensive business capability combined with such practical tact and executive courage as Commodore Vanderbilt. He had not the culture of the schools, nor the polish of the salons of fashion, but he was among men the master. If he lacked learning, he knew somebody who possessed it, and paid him well for the use of it. He understood human character as well as any man of his day, and how to impress his own personality, his thoughts and his purposes upon men of capability. He knew how to select men for positions, and how to be the controlling spirit of their efforts. He was six feet high, weighed 180 pounds, and had as good a temperament and constitution as could be found in ten millions of

people, and originally and naturally, he was a many-sided man, and able to cope with men of eminent ability. He was not a scholar in mathematics, in chemistry, in literature or science, but he had wonderful common sense, and the power to adapt what mankind knew to the practical duties relating to success in life. That tall head indicated wonderful Firmness and strong Conscientiousness. He had ambition and self-reliance, Self-esteem ruling over Approbativeness. He had Benevolence enough to make him generous; he had a strong intellectual endowment. Across the brow the head was prominent; he took in all the details. His memory was capital, and his ability to classify, to use his comparison in choosing the best and adjusting that which was not desirable, was instinctive, and nearly faultless. His Human Nature was eminently developed; he knew how to study men, how to select them, and how to relate himself to them so as to get them allied to his interests in the best way. He had large Language, and though he made no speeches, he talked to the point, and people knew what he was talking about. His head was broad enough to give him courage and force, and his temperament was such as to enable him to manufacture healthy blood and vivify the whole system to do the hard work of life, and the thinking that belongs to the guidance of hard work and complicated business. He was a man of wonderful activity, as well as courage, and his intellect was undimmed at 83 years of age, when he died from a local difficulty. If the true history of Mr. Vanderbilt could be set forth, it would scarcely be credited outside of the realm of his own enterprise and acquaintance. No doubt there is much in blood, in original capability and tendency as applied to human achievements. Heredity does not all begin and end with horse flesh and game chickens. Talent, skill, and hard work were the basis of Vanderbilt's success, and

that wonderful vitality which enabled him to maintain his clearness of thought and his power to old age. His hair was dark, as were also his eyes. He had a fresh complexion, and looked as healthy as a youth of 18 when he had passed his 75th year. He was a long headed thinker, a quick and accurate observer, and remarkably intuitive in forming business judgments, and he had the courage of his convictions.

He was born on Staten Island, May 27th, 1794. His father was a farmer, and carried the products of his farm to the little town of New York by water. He finally established a ferry, and Cornelius spent most of his time on the water. He carried pleasure parties to picnic places, boarded ships, for there were no steam tugs in those days, and in heavy Winter storms anxious ship owners sought out the youthful Vanderbilt to enable them to communicate with their incoming ships. At eighteen years of age he found himself part-owner and captain of one of the largest periaugers in the harbor. During the war of 1812 he rendered material service in furnishing supplies by night to the forts about New York. At one time during the war, in September, 1813, the British fleet had endeavored to penetrate the port during a severe southeasterly storm, just before day, but were repulsed from Sandy Hook. After the cannonading was over it was important that some of the officers should proceed to headquarters to report the occurrence and obtain the necessary reinforcements. The storm was fearful, and all felt that there was but one person capable of undertaking the trip; accordingly young Vanderbilt was sought out, and upon being asked if he could take the party up, he replied promptly, "Yes, but I shall have to carry them under water part of the way." They went with him, and when they landed there was not a dry thread on the party. The next day the garrison was reinforced.

The same year he married Sophia Johnson and moved to New York. As a boatman, at the age of twenty-three, he was making \$5,000 a year, but perceiving that steam would soon become the great agent of navigation, he studied its application to motive power, and for that purpose he

to \$5,000 or more if money was his object. But Vanderbilt had thought well before he decided on the step he was about to take, and at once refused the offer. Finally Gibbons told him that he could not run the line without him, and he said: "There, Vanderbilt, take all the

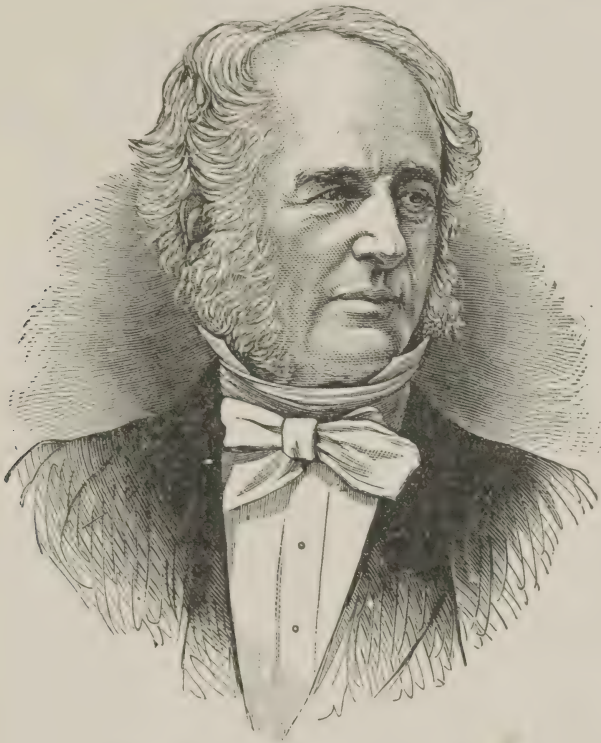


FIG. 126—COMMODORE VANDERBILT.

entered the service of Thomas Gibbons, then proprietor of a line of steamboats running between New York and Philadelphia, and took command of a small steamer. Vanderbilt remained in his employment about twelve years. He now felt at liberty to look after his own interests more closely, and he desired to commence business on his own account. Therefore, in 1829, he informed Mr. Gibbons of his plan to leave him. "You must not," he replied, "I cannot carry on this line a day without you." He then offered to increase his salary

property and pay me as you can make the money." This tempting offer was also declined, as he was unwilling to put himself under any obligation to any one. Now Captain Vanderbilt was his own master, and the next twenty years of his life we must pass over rapidly. During this period he built a very large number of steamboats and established steamboat lines on the Hudson, Long Island Sound, and elsewhere, in opposition to corporations and companies having a monopoly of the trade. He built better and faster boats than his com-

petitors, and run them at the lowest paying rates, thus furnishing passengers the best and cheapest accommodations.

About 1850 the Nicaragua Transit Company was organized, and Mr. Vanderbilt was chosen president. The object of the company was to find a shorter route to California than by way of Cape Horn, and Vanderbilt planned a route so that steamships were sent to the Pacific to run in the line from the harbor of San Juan del Sur to San Francisco, and soon the entire line was in efficient operation. In 1853, Vanderbilt having become a man of great wealth, built his celebrated steamship, the "North Star," in which he took a tour to Europe with his family, and everywhere the vessel, with her splendid appointments, elicited profound attention. The "North Star" was the first steamer with a beam-engine to cross the Atlantic, and the English people treated him as a commodore. In 1862, when the Government needed a large addition to its Navy to aid in carrying out its operations, Commodore Vanderbilt illustrated the nature of his whole-souled patriotism by making a free gift of this splendid ship to the United States. He built and owned exclusively himself, upward of a hundred steamboats and steamships, and never had the misfortune to lose one of them by accident. In 1865, seeing that the railroad interest was to be the major factor of the world's transportation, he sold all that were left of his vessels and transferred the greater portion of his wealth to railroads. He bought the Harlem Railroad, which was run down and never had been more than half built, as was the case with most other railroads of that day. He reorganized it, put his master spirit into it and made it a paying concern, and thus it was a rival of the Hudson River Railroad.

The owners of this road desired Mr. Vanderbilt to take charge of it, in order to secure its success, and we

have heard the story that he said to them: "Gentlemen, I do not have any partners, if you want me to manage your property, sell me fifty-one per cent. of it." And they were very glad to do it; so they made Vanderbilt president of the road, and he in return made the road one of the best on the Continent. The stockholders of the Hudson River Railroad were entirely willing that he should manage everything exactly as he pleased, they knew that he was better able to do so than the rest of them, and they knew, moreover, that he was honest and that they could trust him.

Mr. Vanderbilt desired to come into the heart of New York city with the northern trains, and there must needs be a great railway station. To get it on equitable terms, and do a great public benefaction at the same time, he planned a method of achieving it. The story is told in this way. Somewhere up in the mountain gorges near the Erie Railroad, a man living away from the Delaware river had a farm, which was never worth more than five thousand dollars. One corner of his farm ran over the mountain side, and was so steep that a goat could not climb it either way, and at the foot of this there was about one-third of an acre of ground which the Erie Railroad wanted for a watering station; and this man would not sell this third of an acre for less than five thousand dollars, and the whole farm, of which that was a part, was never worth a cent more than that sum. A bill was then drawn up for enactment in the Legislature, and read thus: "Whereas railway traffic needs more than mere right of way for their track, they need also room for stations, watering tanks, turn outs, and the like. Therefore be it enacted that, if a railway desires such facilities and cannot come to terms with the owners thereof, a petition to the Supreme Court for a commission of dis-interested parties to assess the value of such lands shall be appointed, and their decision, when confirmed by the Supreme Court,

shall be final." That secured the patch of land for the Erie Railroad. The ink was hardly dry when Mr. Vanderbilt went up to Forty-second street, New York, and had planned to have the owner of a row of tenement houses come there to see if they could arrange about a sale of the property. Mr. Vanderbilt asked the owner: "How much do you ask for this property?" "It is not for sale," said the man. "Well, what will you take for it?" "I do not want to sell it," said the man. Mr. Vanderbilt then offered him a certain amount, but the man declined the offer, and Mr. Vanderbilt went away. The next day there were half a dozen men on the ground with crow-bars taking up the sidewalk. Of course, the owner of the property was sent for, and he came frothing with anger, and wanted to know what they were doing. Mr. Vanderbilt looked him quietly in the face and said: "I am going to build a depot here, these houses are in the way, and so they will have to be removed." "But I have not said that I would sell them," said the man. Mr. Vanderbilt then said: "Do not let us have any words on the street, go to your lawyer, tell him what is happening and he will tell you your rights, but there is going to be a depot here, you may understand that." The next day the owner of the property came to Mr. Vanderbilt and told him he would sell the property, but Mr. Vanderbilt then said: "No, I made you a liberal offer and you declined it, now we will let the law take its course." He then stopped his work there, for that had only been commenced to bring the matter up. The Court appointed a commission, who assessed the property for more than it was worth, but for considerably less than Mr. Vanderbilt had offered in the beginning. The Grand Central Station is now the pride of New York.

As an evidence of the public confidence in Mr. Vanderbilt, and as a testimonial of the power of his

character, as well as of its integrity, when the railroad from Harlem to Forty-second street was to be sunken below the surface, the city of New York had her engineers and Vanderbilt had his. They ascertained as well as they could the cost of the enterprise, and the city of New York requested Mr. Vanderbilt to go forward with the work and sink the road. The city of New York was to bear one-third and Mr. Vanderbilt two-thirds of the expense, and the authorities of the city went to Mr. Vanderbilt and asked him to build it and do all the work as it should be done, to keep an account of expenses, and then to render the bill to the city for one-third of the amount, and they would pay it. As we understand it, the bill for the city to pay was a million dollars, and they had the confidence in him to believe that every cent of the cost would be wisely expended and faithfully reported, and this one fact is a memorable tribute to his capacity and to his integrity, and of the wise confidence which the public reposed in him. It was the same character that as a boy of eighteen, enabled him to bring the passengers from Staten Island in a wild storm in an open boat, to report the arrival of the British fleet. He was trusted in both cases. In the first case they said, "No one but Cornel. Vanderbilt can do it." And in the latter case the same spirit seems to have been manifest. They trusted his word for a million dollars, and his skill to do a great work through the heart of the city.

Let the reader look again at his head, note its elevation, its length from the ear forward, and see the physical and the mental harmony of the temperament and the constitution. Think of the life of toil, care and responsibility during the early years of his life, and the opening remarks of this chapter will be verified;—that blood tells, and a man well organized is capable of manifesting power and of securing success,

Fig. 127—Mr. Corbin—is a large man, he has ample proportions, a large head and especially a large face. His perceptive organs are very large; he possesses great practical talent, gathers knowledge rapidly, and as Vanderbilt had, he has an intuitive sense of the present and a far-reaching talent to understand what ought to be done in the future. He has also a great deal of the aggressive, a force of character and self-esteem that enable him to put into execution new plans. He has strong vitality, that long, strong nose, the broad cheek bones, the long upper lip and the height of the head from the opening of the ear to the top, show firmness, determination and self-reliance. He is one of the healthy men of the world, and so is always able to push his cause without assistance. Consequently he is a leader, a pioneer in departments that require peculiar boldness and force to conquer and overcome obstacles. He is methodical and decided. He does not temporize, and he is not inclined to make concessions. He is not soft and is not considered amiable nor plausible, and is not slippery nor oily in his speech. When he decides what he wants to do he talks to the point about it and then stops. With his powerful body, his large head and his wonderful vitality, he is forcible, positive and imperious;—those who admire courage, follow him. It is said that although he is imperious and brusque in his manner, he is capable of winning, not only the loyalty, but also the esteem of those who come in close contact with him. Few men have his iron will, few have his arbitrary spirit in their transactions with the world, yet the open candor of his conduct wins respect for itself and secures success on the practical side.

Austin Corbin was born in Newport, Rhode Island, July 11th, 1827. He chose law for a profession and was admitted to the Bar, having attended a course at the Harvard

Law School. He practiced for a while in Davenport, Iowa, and then entered a banking house, the only one that did not suspend in the panic of '57. He organized the first bank that commenced business under the National Currency Act in 1863. This proved a quick and ready fortune, and in a few years Mr. Corbin came to New York and commenced his career in the Metropolis. He founded the Corbin Banking Co., and acquired success because of his quick and shrewd appreciation of particulars. He afterwards took such an interest in railroad affairs that he may fairly be called one of the "Railroad Kings" of the country. He has paid special attention to the railroads on Long Island, and has thereby enhanced real estate there, and made it a desirable place for summer residences. He organized a plan whereby Long Island was made into a territory of homes, hotels and club houses. He has planned new ferries, bridges, and proposed tunnels under the rivers whereby Long Island can be made the garden of this region, and readily and rapidly accessible to the world.

It has come to be the fashion of late years that men like Mr. Corbin, and other men of brains and capability who undertake to develop resources for the public, have to meet stupid tirades of opposition, the public inclines to work against the monopolists, as they are called. It may be true that a railroad, by setting its price for the transportation of the products of the farms, may get the lion's share, but the history of the Erie Railroad from New York through a wild, mountainous section of the country to the Lake, shows that it has been a costly job for the promoters. It has been sold out three times under bankrupt proceedings, and yet the strip of land sixty miles wide, between New York and Dunkirk, through which the railroad winds its way has been enhanced in value by means of that railroad, sufficiently to have paid all the cost of making and maintaining

the Erie Railroad system. It has made many miles of that which was at the start a howling wilderness, a garden, with bright homes which tell of success and prosperity and happiness. Yet the very men whose fortunes have been made by the Erie Railroad, by enhancing the value of their property,

rural districts and converted farm land into city lots, a day's horse journey from the centres of business.

In the month of January, 1894, a boy was stealing a ride on the rear of a wagon in Brooklyn, and the driver "cut behind," and the boy jumped off under a trolley car approaching from

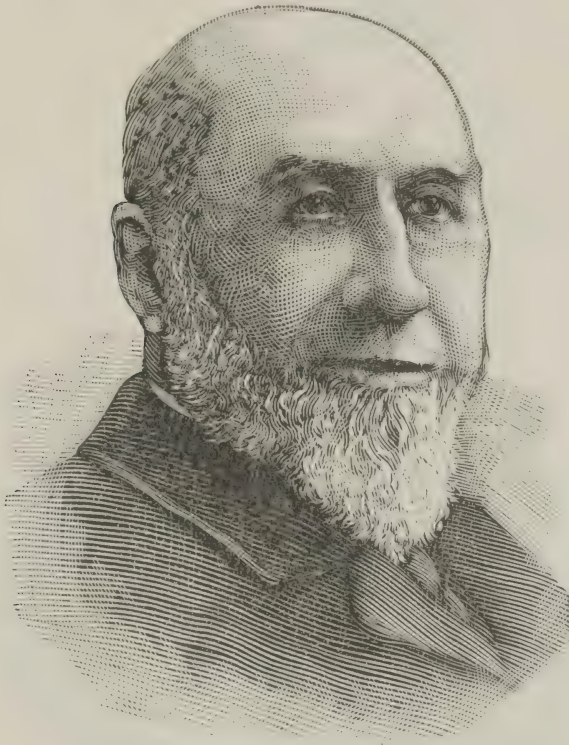


FIG. 127.—AUSTIN CORBIN,
Financier and Railroad Man.

cherish a feeling of selfishness towards the road which would lead them to do everything but that which is absolutely dishonest to increase their own prosperity, and cripple the road. The public is willing men of brains and courage shall use their earnings to develop the wild and remote regions, and while all are benefited by the improvement, there is a disposition to regard the corporation as an enemy to be plucked. Railroads have spread all our great cities into the

the other way and was killed, and would have been by a milk wagon or butcher's cart, as the boy behind the wagon did not see the car approaching nor the motorman see the boy till he dropped from the wagon under his car. The accident was purely the boy's fault, while he was committing an unlawful act. The jury, however, brought in a verdict against the railroad for \$5,000. The usual reason among such juries is "the corporation is rich and the family is poor." A

shyster lawyer often takes such a case for half the verdict, the public is taxed to maintain the court and unjust verdicts are often secured and the plunder divided.

Fig. 128—Prof. Morse—came from good, solid stock. He was the oldest

Motive temperament is shown in the amount of bony development in his figure and face. He was amply developed across the brows, and was inclined to be a scholar and an artist. He was a graduate of Yale College, and he studied art in Europe, to which



FIG. 128. SAMUEL F. B. MORSE,
The Inventor of the Telegraph.

son of the Rev. Jedediah Morse, D.D., the author of Morse's Geography, a school-book universally known. He was born at Charlestown, Mass., on the 27th of April, 1791. His mother was a descendant of the Rev. Samuel Finley, D.D., a former President of Princeton College.

Prof. Morse had the Mental, Motive temperament. The Mental temperament was indicated by the sharpness and activity of his make-up, and the

profession he desired to devote his life. His organ of Constructiveness is shown by the fullness at the region of the temples, partially covered by the hair. Then he had large, perceptive organs. He had uncommonly large Comparison, which gave him a relish for science for mechanism and for art. During his college course, under Prof. Silliman, he learned all that was then known on the subject of electricity and the formation of

electric batteries, and he took opportunity to listen to lectures by the best informed men on electricity and chemistry after he had left the college. The little that was then known on the subject of electro-magnetism suggested to him the possibility of using it to make permanent marks at great distances, so varied as to communicate ideas. He invented an alphabet of straight lines and dashes for telegraphic purposes, and his letters and figures were made up of various combinations of these elements.

In 1835 Mr. Morse was appointed a professor in the University of New York. Having a room in the University, he constructed, of rude materials, a miniature telegraph, embracing all the elements of an electro-magnetic telegraph, composed of a single circuit, which he afterward patented.

In 1838 he petitioned Congress for means to construct an experimental line from Washington to Baltimore. Though men saw the apparatus work, and messages were sent through its short wires, many were skeptical as to its power to work at any considerable distance, and the majority, as it usually treats its greatest benefactors in every age, ridiculed the whole project as the fanciful dream of an unsound mind. He turned to foreign countries and could obtain, even in England and France, no substantial guarantees, and he came home to battle for four weary, poverty-stricken years. The session of Congress of 1842-3, however, was memorable in Morse's history. He had worked, watched, and waited till late into the last night of the session, and, believing his prospects to be crushed in the scramble of a closing Congress, he retired, like a repulsed hero, to his bed, but was awakened on the morning of the 4th of March, 1843, by the announcement that the bill had passed at midnight appropriating \$30,000 to be placed at his disposal to make his experimental line to Baltimore. In 1844 the line was com-

pleted; the experiment was a success, and the world was thus made a compact brotherhood by the practical annihilation of space and time—at least for thought—civilization was set ahead a century in a day, and the name of Morse and telegraphy were wedded for all future time.

Prof. Morse realized a handsome fortune from his telegraphic patents, and lived at a beautiful place of his own near Poughkeepsie, N. Y., on the Hudson.

Foreign nations loaded him with medals and decorations, and vied with each other in doing him honor, while his proud and grateful countrymen have erected statues and monuments to his memory, and enshrined him in their reverence and love.

Happily he lived to see and to know that he was thus appreciated, and blessed with ample wealth, with honor and with world-wide esteem, he died, April 2, 1872, aged eighty-one years.

Fig. 129—Elias Howe.—We give an excellent engraving of the great inventor. Nearly every great invention has been born of necessity in the vale of poverty, if not of suffering. Fulton, Goodyear, Morse and Howe passed through a similar "Red Sea" and "wilderness" to the land of hope and promise. He who has the fortune or the misfortune to think much in advance of his fellow-men, rarely finds those who can or will appreciate and help him. Inventors not only have to eat the "bread of carefulness" but often their care is taxed to the uttermost to get bread, and our subject was no exception to the general rule. He was born at Spencer, Mass., in 1819.

The fulness in the upper and back region of the temples in the portrait before us, shows immense Constructiveness and Ideality. He had large perceptive organs indicated by the prominent fulness across the brows, which qualified him for observation and critical thinking; and the massive upper forehead shows inventive and reasoning power in a high degree. As a child he was made familiar with

machinery as his father owned a saw-mill, a grist-mill and a shingle machine on the place where he lived. In 1835, at the age of sixteen, he went into a cotton factory at Lowell, Mass., where he learned to use machinery. The crash of 1837 closed the mills at Lowell and sent him adrift to seek work, and he found employment in a shop in Boston. Some men appeared at the shop once with some parts of a machine which they were trying to construct for the purpose of knitting, and Davis, the proprietor of the shop said to them, "Why don't you make a sewing machine?" "Oh," replied the mechanics, or would be inventors, "We would like to, but it is impossible." "No, it is not," said Davis, "I could make one myself." "Well," replied the other, "if you do, it will insure you an independent fortune." There the conversation dropped, and it was never resumed. Among the workmen who stood by and listened to this conversation was Elias Howe, then twenty years old. The idea thus picked up by Howe was not forgotten, but it induced him to reflect upon the art of sewing, watching the processes as performed by hand, and wondering whether it was within the compass of mechanic art to do it by machinery.

At twenty-one years of age, being a journeyman machinist and earning nine dollars a week, he married. The little mouths that came to be fed and the nine dollars a week not increasing as fast as the hungry mouths did, he was kept poor, but he still studied at his sewing machine. He had heard that it would be an independent fortune to the inventor, and this gave him the inventor's mania, which gives its victims no rest and no peace until they have accomplished the work to which they have abandoned themselves.

His only thought was to invent a machine which should do what he saw his wife doing by hand when she sewed. He took it for granted that sewing must be that, and his first

device was a needle pointed at both ends, with the eye in the middle, that should work up and down through the cloth, and carry the thread through it at each thrust. One day in 1844, the thought flashed upon him, is it necessary that a machine should imitate the performance of the hand? May there not be another stitch? This was the crisis of the invention. The idea of using two threads, and forming a stitch by the aid of a shuttle and a curved needle, with the eye near the point, soon occurred to him, and he felt that he had invented the sewing-machine. Mr. Howe, by years of study, labor, night-work and poverty had made his sewing machine, and then the trouble was to get anybody to look at it, except as a mere curiosity. Nobody wanted it, the old fashioned way was good enough for them. He went to a clothing house in Boston and challenged five of the best seamstresses there to run a race with the machine. Ten seams of equal length were prepared for sewing, five of which were laid by the machine, and the five were given to the girls. The gentleman who held the watch, and who was to decide the wager, testified upon oath that the five girls were the fastest sewers that could be found, and that they "sewed as fast as they could—much faster than they were in the habit of sewing,"—faster than they could have kept on for an hour. Nevertheless, Mr. Howe finished his five seams a little sooner than the girls finished their five; and the umpire, who was himself a tailor, had sworn that "the work done on the machine was the neatest and strongest." But not one machine was ordered. No tailor encouraged him by word or deed. "We are doing well now, we are afraid to make a change."

Now we have great sewing machine companies, and this wonderful aid in the construction of clothing is found in the houses of the poor, from ocean to ocean, all around the world.

Attempts have been made to esti-

mate the value in money of the sewing machine to the people of the United States. Professor Renwick, who has made the machine a particular study, expressed the opinion thirty years ago, on oath, that the saving in labor then amounted to nineteen millions of dollars per annum, and ten times as much is now saved.

traffic, if the invention of Morse has sent intelligence all around the world, under the ocean as far as human thought could delve, Elias Howe invented a machine by which nearly one-half of woman's weary, unremunerative labor was annihilated, and he was a public benefactor. We erect costly mausoleums to the victor of



FIG. 129.—ELIAS HOWE,
The Inventor of the Sewing Machine.

By means of the various improvements and attachments the sewing machine now performs nearly all the needle ever did. It seams, hems, tucks, binds, stitches, quilts, gathers, fells, braids and embroiders, and makes button holes. It is used in the manufacture of every garment worn by man, woman or child.

If Vanderbilt gave wonderful impulse to railroad construction and

human battles; we ought also to remember that there are victories over ignorance and poverty that engender no animosities and shed no blood; victories that brought wealth and comfort, and evoked neither tears, sighs, nor orphanage.

Mr. Howe died in Brooklyn, N.Y., October 3d, 1867, aged forty-eight years, and his remains were taken to Cambridge, Mass., for burial.

CHAPTER XVI.

BENEFACTORS OF MANKIND.

MRS. LYDIA FOLGER FOWLER, the wife of Prof. L. N. Fowler, of London, England, one of the founders of the house of Fowler & Wells, New York, was born on the island of Nantucket, Mass., in 1823. They were married April 2, 1844. Her Phrenology and Physiognomy furnish an interesting theme of study and contemplation. In figure she was above the medium height, and as she advanced in years she reached a weight of 160 pounds, which gave adequate support to her rather large development of brain. She had a full share of the Vital temperament, which is indicated by the fullness and the plumpness of the face, the breathing power being represented by the upper part of the cheek outward from the nose, and the vigor and strength of the digestive function by the middle section of the face, outward from the mouth. She had a full development of the chin and a steady, uniform circulation of the blood. Her head was broad and long on the top, also well rounded, showing a good degree of the Mental temperament. She was much inclined to study, and especially inclined to think and meditate and reach onward and upward for larger fields of thought and knowledge. It will be seen by the portrait that the head across the brows is well-developed. There was length of the head from the ears forward, though the head is not very broad in that region. The upper part of the forehead is larger, giving

her the power to criticise, to see differences and resemblances and to study the philosophy of things. Causality was large, which gave her the inclination to study principles and the philosophy of topics which inter-



FIG. 130. MRS. LYDIA F. FOWLER, M.D.

ested her. The top head was ample, the moral region was decidedly large and strongly developed and had a distinct influence in the way of controlling and modifying the action of the

other faculties. She had a strong sense of justice, a keen regard for truth, duty and moral obligation, and these had a prevailing influence in her mind. Her Hope lighted up the future and gave her courage and anticipation to go forward in the field of duty with a full hope of success. She had considerable imagination and was inclined to poetry and fiction. She was exceedingly sensitive in regard to character and to the opinion of those whom she respected. She was ambitious in a high degree and anxious to rise in the scale of life and broaden her field of knowledge and of usefulness. She was very affable; inclined to be polite and agreeable, easy in her manners, and strongly disposed to entertain friends and others.

She had a fair degree of dignity and of self respect, which aided her in impressing others with the importance of what she knew. She was anxious to teach. She had a great deal of perseverance and would manage somehow to accomplish whatever she deemed it necessary to undertake. She had a great command over her temper; and though she had Combativeness and Desructiveness fairly developed, they were mainly employed in imparting earnestness to her purposes, and thoroughness to her endeavors in the way of execution. She was able to employ her intellectual resources to good advantage. Her Language was large enough to give her latitude of statement and expression, so that as a writer and as a speaker she was fluent. Her Benevolence, Agreeableness and Approbateness were so strong that, combined with her affections and her social feelings, she had a persuasive and conciliatory manner. People seemed anxious to relate themselves to her in such a way as to become agreeable and co-operative in any plans or purposes which she was anxious to adopt and carry out. Hence she had the elements of popularity. She had the desire to do good, and to make her

efforts available and useful to others. The pathway of success seemed open before her, and the welcome from the public sentiment was the tribute paid to her talents, her morality and her sympathy. Some people are very acute, logical and incisive in what they do and say, but there is more of lemon juice than of sugar in their composition, and the public do not feel as much interested in helping sharp, positive people to secure success smoothly and pleasantly as they do one who is gentle, mellow, and pliable. Wherever Mrs. Fowler moved, socially and publicly, there seemed to be a sentiment favorable to her progress and success, and most people seemed inclined to throw light on her pathway.

Mrs. Fowler was the daughter of Gideon Folger, and directly related, on her father's side, to the mother of Benjamin Franklin, and he possessed many of the mental characteristics which appeared in that distinguished man, as inherited by him through his mother. Mrs. Fowler was a very ardent student, and having obtained a course of intellectual training somewhat in advance of that which was customary for young ladies in her day, she decided to pursue the study of medicine, and for that purpose attended a medical college, then existing in Rochester, New York, where she graduated. Mrs. Lozier, Mrs. Gleason and Mrs. Dolly, of Pennsylvania, each ranking high in the sphere of medicine, were students in Rochester at that time. Mrs. Fowler was appointed Professor of Obstetrics in the same school when she had completed her course of study, and subsequently she practiced her profession in New York and lectured for several years. Besides her professional duties she assisted her husband in his labors as a phrenological lecturer and author. She also prepared a small treatise on astronomy for the use of children. Mrs. Fowler's sympathies, as she grew older, influenced her pursuits, and gave her

mind more and more a direction to the concrete rather than to the abstract. In company with her husband and others related to the phrenological business, then established in New York, she travelled extensively in the United States and Canada, availing herself of opportunities to lecture on physiology and temperance, being always of the latter a most earnest supporter. At one time she travelled through the State of Indiana with a lady friend, lecturing every night on temperance.

About this time she published her first tale; it was entitled, "Nora, the Lost and Redeemed." This story was subsequently published in England. In 1860 Mrs. Fowler accompanied her husband and Mr. S. R. Wells on their professional visit to England, and soon after their arrival took a trip to Italy. On her way back she spent the Winter in Paris, attending lectures. Subsequently she spent some time as a hospital attendant in London, having for three months charge of the obstetrical department; then she travelled through England, Ireland and Scotland, lecturing on the laws of life, physical culture, moral duty and social reform. A number of her lectures were published in a volume under the title of "The Pet of the Household," and were designed as a guide for the use of parents in the physical and mental training of children. Another book which she published about the same time is, "Woman and her Destiny," a work addressed especially to woman.

Prof. Fowler, having decided to settle in London, took an office in Fleet street for some years, and afterwards in the Imperial Building, Ludgate Circus, where he has conducted his professional work, assisted as usual by his wife, until within a few weeks of her death. The routine of professional work was from time to time broken by trips to the Continent, and by a journey to the East, when Greece, Turkey, Egypt and Palestine were visited. Mrs. Fowler threw

herself with ardor into the labors to which she had devoted herself. She had always an abundance of literary and other work of her own on hand. Among her relations to what may be called popular life was her connection with the "Woman's British Temperance Society," as its honorary secretary. The variety of her engagements and the earnestness with which she pursued them, had much to do with her death; it may be said that she wore herself out, and she died on the 26th of January, 1879.

She was widely known and highly esteemed in England as well as in America for her professional abilities and moral worth.

Fig. 131. The recent death of Prof. Billroth, the eminent benefactor of mankind, in the ripened vigor of life and in the front rank of professional fame, has sent a wave of sadness and shadow over every civilized country in the world. The newness of his field and the boldness and success of his work had awakened a hope for his future in the interest of suffering humanity. He has suddenly left his work and a brilliant fame to those who have the skill and courage to follow his footsteps.

This is an interesting portrait, in which we see a combination of force of character developed through the middle section of the head, the strong perceptive power in the large and massive brow, the strong constructive talent in the temples, combined with Self-esteem and Firmness, which give a high crown of head, and a plenty of Destructiveness and Combaticiveness, or fullness above and about the ears, which tend to give that brave look or even hard and positive sternness of expression and attitude that would lead a stranger to his name and attainments to think him fit for a soldier, a surgeon, a leader of men, who could make tracks for the world's astonishment, and give a lead for the brave who dare to follow.

To this brave surgeon must the credit be awarded for first demon-

strating that living human stomachs may be operated upon successfully for the removal of cancer. He took out the section of a stomach of a patient five and one-half inches long, measuring eight inches in circumference; he closed the parts with sutures, and on the twenty-first day the patient, with a good appetite discussed a veal cutlet and the next day a beefsteak. The section of the stomach which was removed was affected by the cancer.

1867 he was called to a professorship at the University of Vienna, where this great surgical feat was performed. While he was great in surgery, he was an active writer and teacher in microscopic anatomy and general pathology, and has done much to improve the hospital system. He unfortunately died early in the year 1894 at Vienna, of heart failure, having been found dead in his bed. The world will miss his talent, his courage and his expert-



FIG. 131. PROF. THEODOR BILLROTH, THE BOLD SURGEON.

This great surgical feat occurred in 1881 at Vienna.

Prof. Billroth was born April 26, 1829, at Bergen, in the Island of Rugen. After having passed through a course of collegiate training, he studied medicine and surgery at different universities, and was appointed assistant to the celebrated Langenback at Berlin, establishing himself as demonstrator of surgery in 1856. Three years later he was professor of surgery and director of the surgical clinic at Zurich in Switzerland. In

ness in his bold field of work. Of course, he has left behind him others who may imitate his skill and courage in the future.

We have the opportunity of presenting an engraving (Fig. 132) of the stomach, showing its original size and shape, including the section which was removed, and also an engraving (Fig. 133) showing the job when it was completed. He made an incision, opening the abdomen of the person suffering from the morbid tumor, uncovered the stomach, removed the

diseased parts of the organ, which measured about five and a half inches in length and about eight inches in circumference. Fig. 132 represents the diseased stomach, the affected portion lying between P and S. The

improved, and she moved about as formerly.

In the old style of surgery, before anæsthetics were discovered and brought into use to remove the sensibility, and before antiseptic surgery

had seen the light, a successful performance of this sort would have been impossible. Now, openings into the abdomen are made every day for different diseases, and, being treated antiseptically, there is no inflammation and suppuration, and the edges of the parts heal at once. There are cases on record where a portion of the intestines has been successfully removed six feet in length, and the healthy parts brought together by suture, and the patient, soon recovering, went on his way rejoicing for a score of

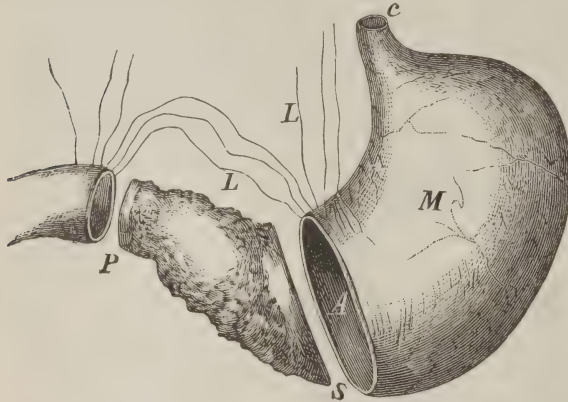


FIG. 132. DISEASED STOMACH.

A, main incision; P, separation of duodenum; P S, the diseased part with the Pylorus; M, the stomach; C, the oesophageal entrance; L L, the first thread inserted.

end of the duodenum (Fig. 133, marked D) was then attached by a suture to the opening of the stomach, which had been reduced in size by an incision, and the removal of a wedge-shaped piece as shown in Fig. 133, and closed by a suture of carbolized silk threads. The result was a new and well formed stomach. Before the operation the stomach had been thoroughly cleansed by the stomach pump, some fifteen quarts of water having been thrown into it and pumped out. On the first day following the operation nothing but bits of ice were given to the patient to reduce feverishness. On the second day she received sour milk, later sweet milk, still later cocoa, tea, wine, eggs, biscuit, and meat. In eight days the abdominal wound was quite healed over, and on the twenty-first day the patient discussed with good appetite a veal cutlet, and the next day beef steak, and on the twenty-third day she left the hospital. In the course of the following weeks the general state of her health was greatly

years. In no science has there been greater or more important progress in the last half century than in surgery in its varied branches; and yet there are persons who speak

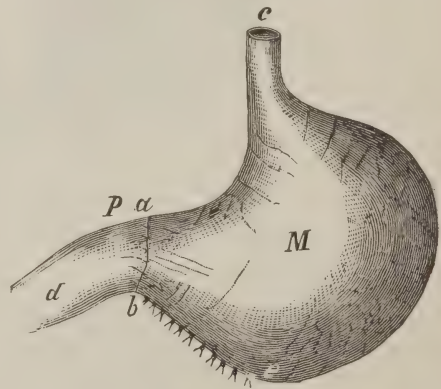


FIG. 133. STOMACH REPAIRED.

A B, the seam made between the duodenum, D, and the stomach M; B E, seam on the stomach; D, duodenum; P, new opening into the stomach.

favoringly of the profession of physicians, but shrug their shoulders and shiver when they think of surgery. And there are people who blame all

surgeons, but it is a beneficent branch of knowledge, and is the means of saving the lives of many thousands, and giving comfort to those who are suffering from afflictions that are grievous to be borne, and the marvels of modern surgery, could they be condensed into half a dozen pages, would be rich reading, and a basis for congratulation and thankfulness, that the skill and courage of surgeons have been cultivated and invoked for the benefit of suffering humanity.

Fig. 134. This portrait is a specimen of self-reliance and independence. The head is broad at the ears, giving courage. It is thrown upward and backward, indicating large Self-esteem, Approbation and Firmness. The crown region of the head is high. The dignified attitude and the complacency of his face show a contented self-respect, and his career was a continuous task on self-reliance and skill. He has the organs of perception across the forehead immensely developed and large Constructiveness, and in these practical elements of ingenuity and skill lay the source of his success, of his prominence in surgery, especially in his line—the surgery that appertains to the nose and throat.

He had a fine quality of temperament. Was sharp, sensitive, clear-headed, discriminative, wakeful to all the truths that related to his life. In this country and elsewhere his fame has been impressed upon the public attention by the position he occupied in being invited from England to Germany to treat the throat disease of the Emperor Frederick, whose lamented death cast such a shadow over the civilized world. He had a cancerous affection of the throat, which disturbed his power of breathing, and was relieved by Sir Morell, and his life much prolonged.

Such an independent, critical, and susceptible type of development could hardly fail to rise to distinction in any pursuit. The temperament being strongly Mental, which gives clear-

ness and sharpness of intellect, with enough of the Motive to render him prompt, energetic, thorough and persistent, he was a ready student, a hard worker, ambitious, eager for success; was fond of approval, yet manifested the spirit of independence.

He was born in England in 1837, studied medicine in London and also in several Continental cities, taking up diseases of the throat as a specialty. He became familiar with the application of the laryngoscope. He was a member of the Royal College of Physicians in London. He practiced in London, where, in 1864, he was elected a member of the Royal College of Physicians. Previous to that he organized a hospital—the first in England of its kind—for the treatment of diseases of the throat and chest; was appointed lecturer on diseases of that sort in the London Medical College.

In 1870 he presented to the profession a work on "Growths in the Throat;" still later a work "On the Hygiene of the Vocal Organs;" another, after twelve years of study, "On Diseases of Throat and Nose." His reputation was largely enhanced by his connection with the remarkable illness of the German Crown Prince Frederick, whose life he prolonged until he became Emperor, which gave him special eminence the world over. And his wonderful success in that case conquered the prejudice of the German physicians, many of whom were formerly opposed to him and his methods. The sending to England for a specialist was an offence to the eminent German physicians; but he had special fitness for that peculiar line of diseases, and probably was the best in the world on that subject. At all events the Emperor's life was prolonged for months, greatly to the advantage of the German people and much to the advantage of his family, especially his wife, the Empress, who was the eldest daughter of Queen Victoria, who very properly knighted Mac-

kenzie, and later an important order of the German Royal House was presented to him by the German Emperor who owed so much to his brave, skillful and loyal surgeon.

So large a brain as his, related to so fine and intense a quality of temperament and organization, developed as his head was so amply in the region of perception and ingenuity, and also

everywhere and especially of those who are prominent in talent and in the sciences which relate to his peculiar profession.

Being called to attend so distinguished a patient in the very home of medicine and surgery exalted and intensified his renown and rendered his own death at the early age of fifty-five years at once an astonishment



FIG. 134. SIR MORELL MACKENZIE, M. D.

in the realm of criticism and sympathy, and then sustained by his admirable development of the organs of self reliance and stability in the crown of the head and in those in the base which give force of character, made him a brave, skillful, rapid and accurate operator, and won for him the respect and confidence of people

and a grief to the whole civilized world. He died Feb. 3d, 1892, of tuberculosis of the lungs.

With such a sensitive organization as his, the difficulties attending, and the great national interests involved in the case of his imperial patient overtaxed his constitution, aggravated his own ailment and hastened the end.

FIG. 135. JOHN JAMES AUDUBON,

Had a physical organization remarkable for its compactness, vitality, power and activity, as seen in his broad chest, athletic frame, prominent features and strongly marked outline of countenance. In conjunction with this temperament, he had great Firmness, self reliance, independence, energy, and force of character—hence, perseverance in whatever he undertook, independence of opinion, and executive ability were leading traits of his character. Cautiousness and Secretiveness do not appear to have been large, and hence frankness of expression and boldness of action should mark his whole life. But what most interests the phrenologist in his mental organization, is the immense development of all the perceptive organs, giving a sharpness and severity of expression—a restless energy to his countenance, which must have been almost painful to those on whom his searching eyes might fall. Although the eyes are prominent, showing large Language, yet the perceptive overhang them to a remarkable degree. See that bold projection at the root of the nose, between the eyebrows—the location of Individuality, then the general fullness across the brow to its exterior angle, and we get the great secret of his remarkable genius as a Naturalist; the close observation, the ready perception, the critical knowledge of forms, colors, and arrangement of all the minute and varied phenomena of Nature's works, as developed in his researches in ornithological science, and that great monument to his fame, "The Birds of America." Locality, Eventuality, Individuality, and Comparison are equally remarkable, hence the power to classify, analyze, distinguish differences and resemblances and power to retain facts, a knowledge of places and desire to travel the trackless forest. Constructiveness was also large—he would have made an excellent mechanic or engineer. Causality does not appear large,

and, unlike Humboldt, he was much more of an observer than a philosopher, he had less power and inclination to deal with principles than with facts and things. The moral organs were large, particularly Benevolence and Veneration, and the spirit of adoration and of kindness were among his strongest emotions. His Hope predominated over Cautiousness, while his practical talent, energy and perseverance made him one of the most industrious and successful of men in whatever he engaged. Such a frontal development marks him as a genius, which his life, as set forth in the following biography, will fully elucidate.

John James Audubon, the celebrated American naturalist, was born in Louisiana May 4, 1780; died in New York Jan. 27, 1851. His admirable work, "The Birds of America," now in the Astor Library, was published by subscription at \$1,000 a copy; was pronounced by Cuvier to be the most magnificent monument that art ever raised to ornithology. But one hundred and seventy-five copies of this great work were published; eighty of these were secured by his countrymen, and the price paid the expense of their publication. He sought and killed the birds in their wilderness homes, and, with matchless skill, with his own hands, drew them the size of life, from the humming bird to the imperial eagle and wild turkey, and colored them himself with marvelous accuracy and beauty.

In the work of gathering his material for the prosecution of his great errand in life, ornithology, he was obliged to make solitary wanderings in the dense forests. Then the Ohio River, and, in fact, nearly all those great Western streams, were as solitary as if they had just come from the hand of Nature. Down these streams he floated with his little family and two servants, till they at last had reached their habitation in the wilderness of Kentucky. Think of the task of hunting in the primeval forests for specimens for his future work, and

then his skill in studying their habits where the sound of the axe and the crack of the rifle had hardly been heard, and the patient effort necessary to procure so large a number of fine specimens! For years he sailed the silent lakes and rivers, traversed the trackless forests with horse and

culture of the old. He was a gentleman by instinct and culture, and full of poetic and artistic tastes. He had a fine and strong nature, at once of a hero, a poet and an artist. His description of birds in their various moods are not the dry, dull details of a naturalist, but the warm picture



FIG. 135. JOHN JAMES AUDUBON,
The Great Ornithologist.

dog where rarely even the hunter ever disturbed the silence. He had taken lessons in France at sixteen years of age and qualified himself under the best masters to do the work, which he succeeded in accomplishing, thus bringing to the wilderness of America, his native country, the finest artistic

paintings of a poet. To open any page of his volumes is to step at once into a region of agreeable facts and enrapturing sounds; he seems to sing when they sing, and to rise as on wings when they fly. But while his life was one of joy within, it was one of toil without; and when he had wan-

dered and toiled for years and gotten accurate representations of American birds, he found that two Norway rats had, in a night, destroyed two hundred of his original drawings containing the forms of more than a thousand inhabitants of the air; all were gone except a few bits of gnawed paper, upon which the marauding rascals had reared a family of their young. "The burning heat," says the noble sufferer, "which instantly ran through my brain, was too hard to be endured without affecting the whole of my nervous system; I slept not for several nights and days, passed like days of oblivion, until the animal powers, being recalled into action, with the strength of my constitution, I picked up my gun, my notebook and my pencils, and went forward to the woods as gayly as if nothing had happened." He went forth, and in less than three years his portfolio again was filled.

FIG. 136. HON. WILLIAM E. GLADSTONE,
Late Prime Minister of England.

This gentleman has a most remarkable physical and mental organization, and one remarkable element about it is that he is hale and hearty at an age beyond eighty-four years. His mind is vivacious and executive, energetic and thorough, even at his great age. His temperament is strong and well balanced, and his head measures about 24 inches. He weighs more than 180 pounds, and stands about six feet high. The organization is not eccentric, but smooth and harmonious. His long life of active usefulness has kept his great body and brain active, healthy and wholesome. The brain being very large, strong and well sustained, we have in him an instance of power, endurance and susceptibility in excellent combination. Endowed, as he is by nature, with abilities to be the peer of the ablest statesmen, his culture and associations have been such as to ripen him for his work, and the times have opened for him a

pathway to renown such as rarely falls to the lot of any man in any country.

The world knows what eminent positions he has occupied for sixty years, and the commanding influence which he has exerted in the statesmanship of England, and the question naturally arises, "Wherein consists his powers of long life, endurance, intelligence, memory, dominant authority and the ability to win and hold friends?" His large body is harmoniously developed. The different elements of vitality are amply represented. His large chest corresponds to the fullness and breadth of his face in the center, the breadth of the cheek bone, prominence of it forward, and the length from the opening of the ear. His front head and front face show constitutional vigor. He has a large chin, which is the sign of a strong heart action; the heart works steadily, vigorously and thoroughly nourishes the system by a free circulation. He has adequate digestive power, and physiologically, he is to-day the equal of most men of half his age in the various functions of vitality.

Readers who are phrenological will understand what we mean by saying that he has a long "life line"; the opening of the ear is low down below the corner of the eye. If a line be drawn from the eyebrow to the occipital spine or bony point in the back of the head, it will pass above the opening of the ear about an inch and a half; and the distance between where that line passes above the ear opening, in a right angle to the opening of the ear, is called the "life line." Readers of the PHRENOLOGICAL JOURNAL may refer to the March number of the JOURNAL for 1893, page 123, where the "life line" is illustrated and explained. Another method of studying that, which is approximate, is to lay a card over the portrait, beginning at the corner of the eye and running it level back, and the ear, though it is large as a

whole, is entirely below that line and the opening of the ear very much below. Persons with that development have

succumbing to its detriments and diseases.

The forehead of this gentleman is



FIG. 136. HON. WILLIAM E. GLADSTONE, LATE PRIME MINISTER.

a strong hold on life. Children born with the opening of the ear low down are likely to live and go through with all the exigencies of life without

very large; it is not only broad and high, but it is long from the opening of the ear to the center of the lower part of the forehead above the root

of the nose. Some heads are short from the ear forward, and the intellect is cramped and deficient. This is unusually extended. The organs across the brows are admirably developed, showing very large perceptive organs, the power of gathering knowledge by observation, and appreciating the differences between objects and the qualities and conditions of things. He gathers knowledge in detail and can recall it at pleasure. He has an excellent memory of events; he must be a charming talker in the way of reminiscence. He will tell stories seventy-five years old, but new to the listener, with a vividness and accuracy that would be entertaining. The organs of the reasoning powers located in the upper part of the forehead, are massive; in the center of the upper part of the forehead is located Comparison, and this gives him the power of analysis, discrimination, criticism. The regions outward of the center of the forehead revealing that massive squareness, show the organs of Causality, which enable him to take a logical survey of a subject, and give the causes, the entities and equities of it. In the region of the temple, above a line drawn from the centers of the eyebrows backward, there is great fullness at the region of Constructiveness and Ideality, enabling him to understand the complications of affairs, and to employ his imagination in giving glowing descriptions of a subject or an object which has interested him. The eye is large, dark and full, indicating a magnetic expression of face. It was said of Webster that when he turned his great, earnest gaze upon an opponent in debate, his look was withering, masterful and majestic. Mr. Gladstone has the power of doing the same thing in the midst of his orations.

Another peculiarity of Mr. Gladstone is his large Cautiousness. If a vertical line be drawn from the back

point of the ear, it will cross the organ of Cautiousness as it rises toward the top of the side head. It gives the head great breadth in the region above the ears, and it will be remembered that he has been non-committal, he has manifested wisdom and tact in talking with apparent plainness on a subject, and yet not quite revealing his full purposes.

He has large Secretiveness; and that gives width of the head on a line drawn vertically from the opening of the ear, about half way from the opening of the ear to the top head, or on a horizontal line corresponding to the tops of the eyebrows running back. This organ being large, enables him to reserve his purpose without explanation; he can talk around a topic that he does not wish to make entirely and fully understood, and make a speech in connection with matters of a public sort and reveal as much as he wishes, and retain the rest until the time has ripened for their expression; yet he has a wonderfully clear intellect and can express himself with warmth and vigor, dignity, breadth and incisiveness, and yet with a reserve that evades the points that may not conveniently be openly set forth.

His large Ideality gives elegance of diction; his strong Combativeness and Destructiveness, which give width and fullness to the side head, give him force. His large Constructiveness enables him to understand the entanglements and complications of a subject, and treat them with masterly success, and yet without committing himself in a careless or undesirable way.

He has large Firmness and Self-esteem, which give determination and strength of will, combined with masterful dignity, which enable him to hold people under his control, and command the respect of strong men in times that are turbulent and unsettled.

He has large Veneration, which gives him religious impulse and devo-

tion; he has a good share of Benevolence, which renders him generous and sympathetic. He has large Mirthfulness, which gives him the power of wit, but he has so much of prudence and Secretiveness, and such an earnestness of purpose that he is not so playful as many a man of lighter type of mind.

The back head is also large and the social feelings amply developed, hence he has the power of personal magnetism in friendship that wins people to him, partly through his majestic power and presence, and partly through the magnetism of sociability; and also he has the towering intellectual capability which makes ordinary men feel small in his presence, and therefore they accept him as a teacher, a guide and ruler, from the massiveness of his intellectual power, and he thus cements by sociality the minds of men to each other and to him.

His face is a study. The massiveness of the head gives dignity to the face, but the face of itself, studied alone, is very strong. That nose, when he was younger, would have been called very handsome. The lines of the face are expressive; he has a good-sized mouth, a long, strong upper lip, a massive chin and length of jaw from the corner below the ear to where it makes an angle going forward to the chin, about where the whisker is and the collar passes it. That indicates strength of will and purpose. The nose indicates intelligence and stability and thoroughness. His long and strong upper lip shows firmness and stability, and also indicates the spirit of friendliness and loyalty to companions and associates.

He has the sign of human nature, capacity to study mind and character and motive, and the ability also to impress people who come into his presence with his power, his intelligence, his prudence, his policy, his courage, and his ability for constructive management, in holding men together and leading them. That is a

strong phase, and it is a good one. Few men of his age carry such dignified expressions of features; there are few men who stand as erect and speak with that clearness and force which belong to him. Most able men who are fifteen years younger than he, are as old in their manner, methods and appearance as he is. He has the faculty of recognizing the countenances and the names of people, and will hold men in his friendship by the fact that he remembers all the detail of their acquaintance, and many of the characteristics and experiences of the persons in question.

His Self-esteem is indicated by the fact that he has declined an earldom which was offered by her Majesty. He is greater than any title; he is a natural master among men, and does not need the letters M.A. or LL.D. attached to his name, nor the term Lord, Earl or Duke in front of it. He will be known as "Gladstone" down the coursing ages. If he had been born to the title he would have made a King or an Emperor in reality, for he is every inch a man, and no title could add anything to his renown. It is generally known that he has taken a great deal of exercise; it is even a matter of mirth that he is a wood-chopper; he likes to fell the sturdy tree and show that he has the power over the ax and the king of the forest; and he has been particular in reference to his diet, especially in regard to mastication, in respect to which most people are either ignorant or utterly careless. Hence he has kept his health of stomach and brain and circulation and muscle. His general health is believed to have been splendid, and we do not remember that the gout, dyspepsia or rheumatism have ever been attributed to him.

The Right Honorable William Ewart Gladstone was born Dec. 29, 1809, at Liverpool, England. He was the fourth son of Sir John Gladstone, Bart., of Scotland. His father, originally of Leith, had won eminence and wealth as a West India merchant

in Liverpool. Gladstone was sent to Eton, and afterwards to Christ Church, Oxford, where he closed a brilliant college career by taking a double first-class degree in 1831. He entered the House of Commons in 1832 for the borough of Newark. He held the post of Lord of the Treasury, and afterwards that of Under-Secretary of State for the colonies in the Peel government, for a few months in 1835. He has often held ministerial office under eminent Prime Ministers and has several times been Prime Minister. His resignation March 3, 1894 as Prime Minister, on account of age, doubtless closes his public career except perhaps as member of the House of Commons.

FIG. 137. LORD ROSEBERY,

The new Prime Minister of England.

The retirement of Mr. Gladstone as Prime Minister of England on the 3d day of March, 1894, completed and turned over one of the brightest and largest pages of English history, and the opening page, representing his successor, with a head and face full of promise and power, invites our present attention.

Massiveness, coolness and self-possession are embodied in this physical and mental endowment. The head is large as the basis of mental strength, the face is indicative of power, but reserved power. There is an expression of calmness, but a consciousness of capability—abundant courage with energy under the control of judgment; steady determination and resolution, but no haste in manifesting his ultimatum. Then he has a wise conservatism joined with a reformatory and progressive spirit. He has a far-seeing, prophetic sense that looks for the good he desires, and that can partially wait and work till he wins.

His features are an interesting study. His long, massive upper lip indicates steadfastness and integrity.

He has a social, friendly mouth, and a fraternal face. The nose shows dignity, self-reliance, persistency, keen prescience; and a well-settled confidence in himself and his cause.

This is also an honest face. He is willing to work by straight lines and accomplish results by the equities that are fair and honest.

He has a calm, steady eye that will not flinch in the presence of greatness.

He does not lose his self-respect, nor confidence in his own power. His progress and success in life would naturally come to him through steady pressure rather than through blows. He is not a man to make eager onsets. If he were a lawyer he would treat his opponents in a case with respectful and kindly consideration. He would cross-examine an opposing witness in a manner that would indicate forbearance and kindness, and if his statements contradicted each other he would quietly ask him to explain it, and thus perhaps tangle him up. He can keep his temper when other men will boil over; he can speak calmly, respectfully and considerately when other men forget themselves and say that which they will in an hour regret, but cannot then take back.

His perceptive faculties are strong and he judges promptly and accurately in respect to science as applied to things physical. He judges well of form, magnitude and weight; he should balance well as a horseman and walk with an easy poise.

That intellect is intuitive, clear, distinct. He is able to hold a large number of facts and interests in his mind. He has an excellent memory; he has an analytical intellect, and yet there is a reserve of logic that comes to his aid when the facts are all analyzed and ready for the summing up.

He has an excellent judgment of strangers; he reads their character well, and is rarely at fault in his estimate of them. A man who

talked kindly and pretended to be friendly he would hold polite relations with for months or years, until the secret opponent was ready to

in his purposes, and that there was a masked battery ready for him.

He is a man of remarkable coolness and presence of mind. He has



FIG. 137. LORD ROSEBERY, NEW ENGLISH PREMIER.

show his aggressive purposes, and who would be astonished to learn all at once that he had been anticipated

the power of comprehending complications. He is a good financier, and if he has a fault which may be incon-

venient for him in regard to his present undertaking, it will be in the direction of forbearance and leniency. He has faith in manhood; he has faith in goodness; he loves the truth because it is true, and he is not hard, tricky, nor selfish. He will try to win on lines of integrity. If he were a business man, carrying great responsibilities, and some public financial pressure should confront him, so that it were necessary for him to ask for an extension or liquidation, it would be found that his affairs had been honorably conducted. Such a man as he would get an extension and liberal treatment.

We judge that his social feelings are strong, that he inherits as much of his mother's nature as of his father's and easily makes and retains friends. His power to resist aggression we think he gets from his father, and also his power of intellectual comprehension, but his tact, sympathy, faith and affection he gets from his mother's side, and therefore he never will be regarded as a hard, overbearing, unjust man; even his enemies will give him credit for sincerity and fairness.

His temperament is evidently Vital, Mental. He has a full development of the physique, and it is in the direction of nutrition, healthfulness and ardor.

The Mental temperament gives him a large head, and the Vital gives him harmony of body and brain. If he had a little more of the Motive temperament it might give him more emphasis and positiveness, but it might not benefit his character.

The top head is well elevated and is long and broad, and he will respect virtue and duty and temper justice with mercy. He is endowed with a body, mind and character to deserve success.

Like Mr. Gladstone, Archibald Philip Primrose, Lord Rosebery, is descended from a Scottish family. His ancestors have been distinguished for centuries, and allied themselves

by marriage with the greatest names in Scotland. The present Premier is forty-seven years old, having been born in 1827, and from the beginning of his life he was destined for politics. He was educated at Eton and at Christ Church, Oxford. As he was certain to inherit an Earldom if he outlived his grandfather, this taste for public life was sure to be gratified sooner or later in the House of Lords, but the young man preferred to win his first honors in the House of Commons. His father died when he was only four years old, and he was only twenty-one and had just been elected to the Commons when his grandfather died, and he took his seat in the House of Lords as the Earl of Rosebery.

HON. NEAL DOW.

Fig. 138. This man, with a world-wide reputation, celebrated his 90th birthday on the 20th of March, 1894. The portrait presented was made some years ago when he was in his ripened vigor, and he now has a bright and brave look, even at ninety.

His father died in 1861, at 95 years of age, and his mother died ten years earlier at 75. So he has in him the elements of endurance, power of thought, and harmony of physical and mental development, which permits, and with right living reaches old age. Every line of his face indicates power and positiveness, and though he has been called a great fighter, the term is hardly appropriate to him, because it would be better to call it a struggle, a moral effort against immorality and the bane of human life.

His head from the opening of the ears forward is high, showing large Firmness, Self-esteem, Approbateness, Conscientiousness, Hope and Veneration, and if ever a man was called to a long campaign of strife and persistent effort against the popular sentiment, and against fearful combinations and opposition, Neal Dow is just that man. He has an

intelligent expression of countenance, and it is harmonious; there is no extravagance or exaggeration about his face. His chin supports his lower lip and that sustains the upper lip, and the nose is built on it as if it were a part of masonry, and had a good foundation to rest on. Then look at that broad, strong cheek bone, showing good breathing power, and the possession of that kind of heroic courage and thoroughness which requires power, resolution and vitality. What a calm, steady eye he has! It is bright without being bitter or acrimonious. It looks as if he was hunting for evil to be removed rather than himself to do evil works and wickedness.

His large perceptive development shows wonderful power of observation and ability to gather up facts and attend to detail. He has a rare and retentive memory of facts, places, and methods. He has a good memory of countenances. He judges color well, measures form, size and weight, could have been a mechanic or an artist, and would have been useful in these departments, and is adapted to gather and use information to excellent advantage.

He has large Comparison; the center of the upper part of the forehead is very full, consequently he is full of appropriate illustrations and figures of speech. There is such a right onwardness to his diction, and such thorough earnestness to his purposes that they are focalized, as the rays of light and heat are focalized through a lens and converged to a point, to make it hot where they touch.

His Human Nature, just where the hair unites with the center of the top part of the forehead, shows criticism in reference to persons and dispositions, and gives facility to manipulate people, saying the right thing at the right time and in the right way, and acquiring great influence with people. His large Benevolence gives elevation to the front part of the top

of the head, but that of course is somewhat obscured by the amount of hair, but it shows that it is amply elevated. Veneration lies behind Benevolence continuing the elevation of the top head, as the line extends backward. Then the region of the crown is well marked; Firmness is large, showing steadfastness, dignity, ambition and integrity, and he has a fair share of prudence, but he is not always consulting safety. He studies what should be done, and how it should be done, as an engineer lays a railway through a broken country;—not going around all the hills, plowing through them, or tunneling them and using the *débris* to fill up the valleys between. So he has tried to do what ought to be done in a straightforward, earnest, and honest way, without equivocating. He has been as persistent in his line of effort as William Lloyd Garrison was in his, who said, "I will not extenuate, I will not equivocate nor yield a single inch, and I will be heard."

His head is fairly well developed in width. He has the elements of courage and executiveness. He has a fair share of the feeling of economy, and desire for acquiring, and in ordinary lines of business, if legitimate, he would push them to successful results. The form of his body does not look bony and broad, but plump, smooth, and harmonious. He had a wonderfully young face for his age, when this picture was taken, and even to-day there is, for instance, enthusiasm, balance, and harmony in every expression of his features and in the organization of his brain; no part seems to predominate beyond the influence and activity of the other parts. If he has courage, he has also prudence to guide it. If he has practical talent, he has also reasoning talent to absorb, balance, and rightly direct the facts. Then the moral sentiments work with courage, dignity, and practical talent, and these have given him his influence and his power. But he has a gentle

nature; there is much in him of his mother, which leads him to seek out and cultivate the gentler side in the common walks and affairs of life. He is a very companionable and cheery man, not rough or lordly.

In his earlier life he was slim, and comparatively thin and wiry; in his later life he has rounded out more fully, indicating that his nutritive

stock that settled in New Hampshire in 1637. His father settled in Portland, Maine, where Neal was born, and lived to the age of ninety-five years. Neal Dow's longevity is hereditary, two of his ancestors having lived over a hundred years, and several over eighty. He was married in 1830, and has four children now living. He attended public and



FIG. 138. HON. NEAL DOW, THE APOSTLE OF TEMPERANCE.

system was amply developed, as derived from his mother, and his health, as a consequence, was harmonious, and the whole mental and physical make-up substantial and available.

Hon. Neal Dow was born on the 20th of March, 1804, in Portland, Maine. He came from English

private schools in Portland and the Friends' Academy in New Bedford, Mass., his family on both sides being Friends, though he left the society before he was of age. In the village debating societies and in town meetings, he acquired facility in extemporaneous speaking. Active in the politics of his day, he was an efficient

and acceptable speaker. His judgment and integrity placed him in the directories of banks, manufacturing, railroad and other corporations. Later, when nearly sixty, at an age when most men are unequal to the hardships of army life, he volunteered in the war for the Union, serving as Colonel of a Maine regiment and afterwards as Brigadier-General of Volunteers, was twice wounded in battle, and for many months a prisoner of war.

Mr. Dow's world-wide, enduring fame has come through his long and self-sacrificing service for temperance. The present generation has little conception of the task which he undertook more than sixty years ago. A man with less than iron nerve and without an unconquerable will, would have faltered before it. The liquor traffic constituted a large part of the business of Portland. Authorized by law, it was a legitimate trade, supplying an almost universal demand. It was sustained by an overwhelming public sentiment there as elsewhere. In the midst of such conditions, to declare the liquor traffic hurtful in effect, a wrong in itself, was regarded as an insult to the intelligence and an impeachment of the integrity of most respectable citizens. Of course, he met with hostility, but, convinced that no progress could be made while the liquor trade was legally considered necessary and respectable, Mr. Dow aimed to strip it of its legal endorsement, and to this end, to convince the people that the trade was a prolific parent of poverty, misery and crime. Thus he became an object of studied and persistent hostility in various forms. Incendiaries fired his building, miscreants assailed his house with missiles, attacked him in the street by day and by night, though always to their own discomfort; his skill in sparring enabled him to clear the track through many a riotous crowd. Again and again he appeared before a legislative committee with enor-

mous petitions urging the adoption of prohibition, only to be repulsed. He then appealed to the people to outlaw the liquor traffic through the Legislature.

In 1851, Mr. Dow was elected Mayor of Portland by a larger vote than before had been given a Mayoralty candidate. Clothed now with the influence of official position, he appeared before a legislative commission with a draft of a prohibitory law, pledging himself that if this was enacted, that within nine months the open traffic in liquor in Portland should be annihilated. This pledge he subsequently amply redeemed. The bill was passed and was approved by the Governor June 2, 1851, and has ever since been known as the Maine Law.

In the Spring of 1855, Mr. Dow was again elected Mayor, and again successfully enforced the law. He was elected unanimously to the Legislature, a tacit and courteous acknowledgment on the part of the political opponents that he had been unjustly assailed. He visited England, spent four years advocating prohibition, and served to establish the principle which is at present agitating the British Parliament on that subject.

Mr. Dow is still leading the movement which enlisted the strength of his youth. Two generations ago he put his hand to the plough and hasn't looked back. Whoever else has faltered, he has not wearied in well-doing. Appreciating the magnitude of the task before him, no success has elated and no reverse has discouraged him. For this reform, at ninety years of age, he is laboring with a hope and enthusiasm mature of youth, the determination of mature life and the earnest conviction and calm faith of a ripe old age. He hopes to die in the harness and be able to say with the Apostle Paul, "I have fought a good fight, I have finished my course, I have kept the faith."

CHAPTER XVII.

LITERARY AND BUSINESS SUCCESS.

CYRUS H. K. CURTIS.

Founder of the *Ladies' Home Journal*.

The following analysis of Mr. Curtis was made from a personal examination of his head, he having been introduced by a friend of his without giving his name or occupation, and it was literally the "study of a stranger." We give it verbatim as reported:

Your head, measuring $22\frac{1}{4}$ inches in circumference, and from ear to ear over the top of the head 15 inches, is large enough for a man who turns the scales at 160 pounds instead of 132.

You are a compactly built man; are positive, executive, intense, quick, and enduring, and you are not as likely to break down by over-work as the majority of men, because there is a kind of tenacious, wiry endurance connected with the fiber.

Your dark hair, dark eyes and firm fiber indicate the Motive temperament. The second temperament with you is the Mental, including the brain and the nerves, and with your nervous susceptibility and excitability you are likely to impel your locomotive system, or mechanical system to do a great deal more work than is common with persons of your weight. Any work that comes within the scope of your strength, you can turn off effectively and rapidly. If you were put into heavy work, like the lumber business, for instance, you would over-work and get broken down. If you were building something that was within the

scope of your strength, you would be rapid and accurate in the work, and there would be few men who could do as much as you would.

The third temperament is the Vital, and that in you shows good lung power, pretty fair digestion, and good circulation, and if you will avoid coffee, tobacco, spices, and other articles which are apt to disturb the nerves that operate the heart, you will be likely to live to a good old age; whereas if the action of these nerves were disturbed, it would tend to produce heart failure, even if there were no disease of the heart.

With your large brain and sensitive temperament, which inspires you to thought and effort, you are sharp, earnest and emphatic. Wherever you act, something is achieved. When you strike, the bell sounds; wherever you use force the diamond point cuts the glass. Your head is broad from side to side, and you are energetic and positive.

You have the financial elements, which, if devoted to business and to finance, would make you wise, efficient and successful. You always see the profit and loss, the financial or commercial side of all subjects which involve the expenditure and accumulation of means, and if you were trained to a business of manufacturing you would be able to financier definitely so that there should be no leaking of cost unnecessarily. You would organize in a business departmental methods or responsibility and criticism; for instance, in a bookstore you would have accounts kept with each book. If a

book did not pay you would drop it out and would put extra push into that which did pay, because it had merit of its own. So in those lines of economic procedure you would analyze, criticise, and organize, and make things successful, or else drop them.

You have the faculty of judging character which helps you to work through other people. You would be able if you had business wants to be served, to find men who were adapted for the work in temperament, culture and habit. One likes accounts, another likes to collect, and another likes to handle the material, to work with his hands and his thought. One man will sit at his desk and rule a thousand agents, peppered all over the land; he will pull these wires, or act through them and so produce desired results; and yet he might not be worth much to take one of those departments himself.

Intensity is one of your special qualities. This gives you the tendency to feel in a hurry and you may over-do in that way. I would put people under your influence who would have a quieting, sedative effect upon you—people who would receive your rebukes, your instructions and your hurrying, and seem gratified and thankful that you had favored them with information, and who would go about what you would tell them to do without objection. But if people were like sand-paper to matches, when friction came, they would hardly know whether the fire came from the match or from the sand-paper. People around you ought to be quick to think, but they should not be very emphatic in their actions. They should move with an easy sweep of effort—they should shut doors easily—they should not walk with heavy shoes, they should not talk very loudly, and they should not answer back until you wanted them to. You have the faculty of holding people in hand, as a skillful driver can hold four pair of reins. You are capable of organizing because you

have large mechanical faculties, that is to say, you have the power to plan what needs to be done, how it should be done, and thus organize the efforts of others so that they would work profitably and harmoniously. For instance, if you understood printing, you would make a good foreman in a printing-office. You would divide an article into as many "takes" as the time would demand, and you would put force into all your efforts and all your thoughts. The base of the brain gives urgency, and you act, walk and talk as if you had no time to waste. People would learn to work faster by working for you. If a person were to come to you for instructions, you would lean forward in your chair, open your eyes wide, look him squarely in the face and give your instructions as fast as you could; you would not lean back, put your thumbs in your vest, revolve in your chair, and say, "Well, we must consider that."

You would have made a first-rate surgeon; because you would have worked rapidly, and you would have worked boldly.

You would have a sharp memory of ideas. Impressions that you derive from seeing, hearing, experience and from thinking—these experiences are fadeless—you remember the thought and the idea you get from them, you may forget the facts from which an impression is derived, but the impression lasts—it is indellible. In dealing with human nature, and in working through it you would select the right factors for doing certain things; and you might select men who could do the work better than you could do it yourself, but you would do the directing. You would assign different duties to different men according to their peculiarities. If you were a captain of police, you would know all your men and what men would be requisite for a particular job, and you would assign the men to duties according to their peculiarities. You might not be able to go into the field yourself and do the work, but you would

understand it so well that you would assign the right man to the right place. The same would be true in carrying on general business. If you wanted a man visited on some delicate or intricate business, you would consider his temper, and his circumstances,

gives you an aggressive spirit, the tendency to push whatever you are interested in. You would get more miles out of a given team on a certain road than most men who drive teams, because your voice would be an inspiration to effort. You would



FIG. 139. CYRUS H. K. CURTIS.

and then you would choose a man to go whose temper would not rasp the other man,—you would send a man who would be mild, mellow and conciliating, but who had Firmness enough to stand quietly, but still persistently. Then if you wanted a man visited who needed a dominant spirit to manage him, you would select a man of the requisite type.

Combativeness is rather large, which

not need a whip, you would only draw the reins and speak in such a way as to inspire the horses to effort, and then they would go. In going uphill you would let them go slowly, and when they got on a level stretch again, where you could push them, and where they had nothing to do but keep out of the way of the wagon, then you would manage to get distance out of them; so it would

be easy for the horses, because you would plan for them,—you would make them go according to your idea of what was easiest and best, and so you would bring your horses home all right; as a livery-stable man would say, you would bring them in “dry in good wind,” and you would drive quickly too. You would drive business in a similar way.

You are fond of argument,—you like to take the opposite side; where you seem to be opposed you are apt to respond in kind, but if people present a subject, and do not seem to oppose you, then you will say, “Well, yes, that subject is worthy of consideration.” The moment you find you are not being opposed you are open to conviction; and if a man has any suggestions that are better than your own, they would be accepted by you with more courage and promptness than by most men. You want the best, and if somebody knows better than you do on some point you want to find it out as quickly as you can, and then you say, “Why, yes, John, that is a good idea; incorporate that into your plan, it will work—well.” You would take up the new plan heartily, you would not act as if you had been defeated or surpassed in your judgment. In fact, your mind works so rapidly that very few men get ahead of you.

If you had the chance to be the director and controller of affairs, you would work up prosperity right along, but perhaps there would be more friction in you than in the business. Whatever is interesting to you gets attention, and you are on hand in season and out of season, and you plan and accomplish desired results. You do not let grass grow under your feet, as the saying is. You do not let things go by default.

Destructiveness gives you efficiency, and Combativeness gives you aggressiveness, industry, push and activity, and the desire to exert influence. Destructiveness gives you

solidity and executiveness and makes you good in a pinch.

Your Secretiveness qualifies you to conceal that which you do not wish to communicate. It is very little trouble for you to hide thought and knowledge on topics that do not concern other people. You do not confess your weakness, at any rate, not until the crisis is past. I have known men after they had become rich to tell how near they came to failing, seven years before, but they do not tell that until after they stand on a good, firm foundation. Then there are some people who show their condition in their faces. You have Secretiveness that leads you to conceal your thoughts and to use your knowledge to good advantage, and not to use it where it is not best.

You have large Friendship, therefore you are influential in that field. The friendship of other people influences you and you want to cement alliances between yourself and them. The social tie is strong between you and those you can affiliate with.

The love of home, the love of children, and the love of woman is strong; and woman exerts, and always did, a beneficent influence with you.

Your father might scold at you, he might beat you, but your mother's word was an inspiration, and her wish would influence you better and perhaps more deeply and more continuously than the father's stronger method.

You have the domestic spirit. If you were a physician you would be popular in the families. Woman likes you, childhood likes you. You can win the interest and the sympathy of childhood and of womanhood, and, therefore, you would have made a good teacher of a female seminary. The girls would have looked upon you as an elder brother, and they would not have conspired against you so as to get the best of the teacher. If you were a preacher there would be a larger number of women who

would like your discourses and your pastoral influence than would be common in other congregations with other men.

The truth is, you inherit a great deal from your mother—your temperament, your spirit, your refinement, your affections, your faith, and your intuition come from her.

The fineness of your quality indicates your intensity and susceptibility, and does a great deal to explain your tastes and tendencies.

You like the fine, the nice, the perfect and the clean, using the word clean in its largest and best sense.

You are executive, brave, plucky, enterprising, strongly affectionate and loving.

You have tact, ambition, thoroughness and moral judgment. You will contend more earnestly for that which you think is right than for that which you think is merely profitable; and when things are wrong, no matter whether there is any morality in them or not, you want them corrected.

You would make a good proof-reader for that reason. You would see all the errors and you would want to revise the proof to see that all your marks had been noticed and made.

You enjoy music, appreciate art and beauty. You have enthusiasm, and that enthusiasm is backed up by courage and ambition, therefore we judge that you are a factor of influential force wherever you move, and you are an inspiration to other people's capabilities. In photography there are chemicals applied which serve to make the body of the picture, and then there are certain sensitive influences that are brought to bear which bring the picture out quickly with a flash light. It used to take two and a half minutes to make a picture, but they have been working towards shortness of time, and now they have the instantaneous picture. You serve among men, in business and in affairs like that special sensitive chemical influence in

photography which brings a picture out quickly and clearly.

The criticism that we would make for your benefit is that you are liable to take on too much duty,—to be too hearty and too earnest in the fulfillment of duty, and thus wear yourself out and break yourself down before your time.

You are fortunate in two things; in the first place you work easily, considering your speed, and secondly, you have tenacity and activity, which make effort earnest and rapid.

BIOGRAPHICAL.

Cyrus H. K. Curtis, who founded the *Ladies' Home Journal*, is its present owner and publisher. Mr. Curtis is a typical, energetic "Down-Easter," having been born in Portland, Maine, on the 18th of June, 1850. He was twelve years of age when he turned his attention to the world of periodical literature. He was a schoolboy, but outside of those hours when not laboring with problems of geography and arithmetic, he sold newspapers. He soon built up for himself a lucrative "news route," and success in this led him to try his hand at publishing a paper of his own. The result was a unique production; its title was the *The Young America*, and it styled itself "the best and cheapest monthly in America." Its price was two cents per month, and the name of Cyrus H. K. Curtis was blazoned forth as "editor and publisher." He set all the type himself, printed his own paper on a boy's press. Moderate success crowned his efforts, and, with youthful enthusiasm, he gloried in his journalistic achievement.

At this time, Phrenology, as represented by Prof. O. S. Fowler, was the rage in Portland. Along with hundreds of others, Mr. Curtis tried the skill of the phrenologist. The result of Prof. Fowler's examination of young Curtis's head was that he was destined for large success in a business in which he would deal with

women—a prophecy which has certainly been verified.

In 1868 he removed to Boston and entered the advertising business, and subsequently became engaged in the publication of several periodicals.

A desire to bring himself closer into contact with New York business men and houses led him to remove to Philadelphia in 1876. He chose this city with the shrewd observation that a man can throw a stronger light on a great metropolis from a short distance than by actual residence within its borders.

His first Philadelphia venture was the establishment of a weekly periodical called *The Tribune and Farmer*, which he brought to a bona fide circulation of 46,000 copies. This periodical he conducted until the idea of *The Ladies' Home Journal* occurred to him, and, on Dec. 1, 1883, the first number was issued of the periodical which in seven years was destined to astonish the literary world.

Mr. Curtis is a firm believer in generous advertising, and no magazine of to-day is advertised on such a large and extensive basis. He makes the advertisements attractive, gives them plenty of space, and he may be said to be one of the best advertisement writers of the present time. "Does it pay to advertise so largely? Yes, in every respect. A man can never advertise too much, so long as he is judicious, has something which the public wants, and exercises careful judgment in the selection of his mediums."

His business principles commend themselves to every believer of honesty in commercial transactions. For any form of deception he has the most sincere hatred, and believes that not only is honesty the best policy in business, but that it is the only one which a man can follow with any hope of permanent success.

Personally, Mr. Curtis is popular in the best sense of that word. His open principles attract all who come in contact with him, and there is with them

ever present a feeling of security in all their transactions with him. He is a man of fertile brain, to whom fresh ideas come quickly and naturally, and no proposition which has merit in it is too large for him to grasp and undertake.

EDWARD W. BOK.

Editor of the *Ladies' Home Journal*.

(The description of character was dictated to a stenographer when the examiner had no idea of the name or pursuit of Mr. Bok.)

You have a pretty good frame, and a fairly developed muscular system; but your head measuring $22\frac{7}{8}$ inches in circumference, and $15\frac{1}{2}$ inches from the opening of one ear to that of the other over the top shows too large a head for your present weight, 146 pounds. You ought to weigh 170 pounds. If you were large enough to turn the scales at 170 pounds at your ordinary working condition, you would be able to do more work with your brain and not feel depressed. You would not need vacation as much as you do now. A word or two as to how to carry your large brain may be useful to you. In the first place you ought to sleep an hour more than is ordinarily supposed to be necessary. Eight hours of sleep is supposed to be the average need of the human race at your age. If you could make it nine hours every night it would give you 20 per cent. more of power to work and to think.

You can improve your diet with a view to vigor and to length of life, by dropping out a good deal of the carbonaceous portion of it, to wit, sugar, fatty matter and starch. If you could eat the entire wheat instead of the mere starch, which is only the heating part of the wheat, and the entire milk instead of the butter which produces only heat, and if you would leave sugar pretty much out of the question it would be better for you. Your complexion, and the tendency to pimples show that you eat too much sugar, or other carbonaceous material. If

you will, take lean beef, mutton, fish and eggs, fruit without sugar, oatmeal, wheat without sifting, vegetables and the entire milk, you may eat to your temperate satisfaction, and then there will be no feverishness, no excitability and no tendency to nervousness, no liver, kidney or dyspepsia trouble,

you achieve the what, and are instantly hungry to know the why, so you are all the time holding communication between facts and philosophy; things and their uses; phenomena and logic.

You have large Language; you talk as easily as water flows towards the



FIG. 140. EDWARD WILLIAM BOK.

Editor of the *Ladies' Home Journal*.

as would be likely to occur with the common mode of living.

You ought to avoid coffee, alcohol and tobacco, as well as spices.

In regard to the brain, your head is amply developed in front, indicating clear-cut earnestness and breadth of thought. You gather the facts,

ocean, when you understand a subject as well as those are supposed to understand it who are listening to you, or who read what you write, you have the faculty of liquefying your logic. There are those who know enough, but their knowledge is like cold beeswax in a jug, it is rich, but solid as a

rock, and needs a great deal of warming before it will pour; what you know is like kerosene in a pitcher; when you want it to flow it is ready. You have large Eventuality, which enables you to hold historical knowledge in solution. That is, you can consider it in its severalities, in its identities and in its peculiarities; then your Language is large enough to convey it. You would make a good extemporaneous speaker. For example, if you were a physician, you could stand before a class of students who knew something about muscles and bones, and you would seem by your descriptions to put new life into these and thus you would make an extemporaneous speaker.

Being a natural teacher, if you understood the art and the science of public speaking you would preach well, or would lecture well, and people would feel while you were discoursing that you were talking to them, and that you were not delivering a stilted oration; although once in a while you would run up to an oratorical height in making a rounded culmination of statement.

You have large Benevolence which renders you sympathetical. You are sorry for people, and you can talk on the tender side of a subject, and if you were a clergyman you could go to a funeral and so talk to the people, that they would be glad to go and hear you elsewhere. The listeners would think you were "good at a funeral" because you can be intelligent, tender and logical. You can talk about difficult topics in a way to make them tolerable. You can say hard things smoothly. You can give advice without seeming presumptuous, and reproof without seeming cruel. When you are called to take people to task about something, they thank you when you get through.

Your head is high, and the moral group is large, and you take hold of the theoretical side of subjects. You are just, merciful, reverent, and hopeful. You could take a person's hand

if you were a minister, a physician or a friend, if that person were ill, and it were questionable whether recovery would result from treatment and time, and could talk in such a way as to benefit and please the patient, and perhaps lift him out of darkness into healthy recovery. You would say, "You are worth a dozen dead men; hope in God and in a good constitution, sleep all you can, and do not worry." That is the spirit in which you would treat trouble and difficulty, and you would thus help to buoy the patient.

You read character well. You appreciate strangers, and know how to address yourself to different strangers of varied peculiarities so as to achieve desired results. You could ask for a subscription from a stingy person, or from a person who did not have the money to spare just then, and could do it in such a way as not to make the person feel ashamed or annoyed. You would say to a person, "I am representing such a cause; if you wish to contribute to it I am authorized to receive your name and your donation;" and if the man said, "I am very sorry, but I do not think I can afford it just at present," then you would say, "Well, I am sure you would be glad to do it, if convenient; I will not press you, but sometime perhaps you may feel able to do it." And you would get out without having the man feel that he was hunted or annoyed. And if a man did give something, you would talk in such a way as to make him feel that you appreciated that he had been generous, even if it were only half as much as you had expected. You would say, "I am very much obliged." But you would not add "for half as much as I expected to get." Yet there are some men who are just as good and as true as they need to be, but they lack smoothness, mellowness, sociability and pliability; they hurt everybody they touch; they cannot collect a gas bill without making a man feel crabbed. Yet, you have sterling de-

termination, and if people are in the wrong, or if they undertake to wrong you or the truth, you have steadfastness and dignity that would enable you to make them feel sorry and ashamed—if it were necessary. If you were a teacher, and the young men were delinquent in decorum, or in attainment, you would be able to reprove without alienating; you can punish without awakening hatred. If you were obliged to give a person a demerit you would say, "John, it is harder work for me to do this than for you to take it, but I cannot help it, my duty requires it, I owe it to your parents and to the school, but I hope I shall not have to do it again, and if you will do your best I certainly shall be spared doing it." And the delinquents would dread delinquency because it would hurt the teacher. There are teachers, so called, who seem to delight in finding fault, in detecting error and delinquency; they hunt for it, as a setter dog does for the track. If it existed you would find it, but you would not make people think you were hunting for it, you could show that by expressing regret and surprise: "Is it possible that you have been delinquent? I am very sorry." And that would save a fellow where hard words would not reclaim him.

I think you had a good mother, and you have borrowed much of her life. She got hers probably from her father, and it has been filtrated through maternal life, and you have taken it in that way, modified. You have your mother's spirit, talent and sentiment.

You have large Causality, which seeks to know the why. You have the instincts which enable you to find out facts and truth, so that you have a kind of free access to knowledge in detail and also in its philosophic form. You hardly know in which phase of acquiring or holding knowledge you are strongest.

You have ingenuity and planning talent, ability to devise ways and means to accomplish things smooth-

ly and easily. If you had been put into a manufacturing institution, you could have drawn plans and patterns, and devised ways and means to accomplish desired results successfully. When you see new inventions you are attracted, and are induced to study them until you understand them, and wonder why they had not been done before; but you are essentially literary, moral, philosophical and ethical.

You have a devout, a kindly and a just spirit. You are watchful rather than timid, you are cautious, guarded and prudent rather than worrying, anxious, despondent and fretty about the future. If you live rightly, you can have sunshine all the year round. All you need is to keep your body in such a condition that your nervous system will not be exacerbated.

You are a good friend; and naturally patriotic. You love home and you would enjoy the ownership of lands—"grounds," as they are called. To a young lady of Freehold, New Jersey, I once said this, and she looked up with pleasure and pride, and said, "Our family live on a farm which was purchased of the Indians by our ancestors; it has never been out of our hands, and a piece of buckskin represents the deed." And we shook hands on it.

You are ambitious to be respected, are also proud enough to desire to deserve respect, and therefore you stand erect even when people do not recognize your worth, your good intentions and your talent;—you may feel despondent, but it does not crush you,—you simply say "They do not know me." We mean that what you are, and what you have attained you understand pretty well, and you stand in the plenitude of your attainments manfully and with dignity, and you believe in yourself. You may not be arrogant, but you are not cringing or weak, and are sorry for people who are so.

I would give you more Combative-ness, would make you a little more se-

vere and would give you more policy and concealment and ability to manipulate smoothly for the world's good, but not deceitfully. I would give you more reticence, more power to hold what you know and feel, hope and fear without showing a sign of trepidation or of solicitude. All your life long, if you have been unfairly and unjustly reproached, ridiculed, misunderstood or maligned, it has hurt you worse than you were willing to have people know. Your Self-esteem and your Firmness have kept you up; you feel, "Though he slay me, yet will I not wince."

I would give you a little more base of brain, more of the selfish qualities, the capacity to be harder where hardness is useful.

With your large brain you ought to be an intellectual man, in the minutiae as well as in the philosophical. You are artistical in your taste, mechanical in your judgments, but not quite financial enough; you need to appreciate profit, property and gain more than you do. You can achieve that which ought to be paid for, better and easier than you can make people agree to pay you and get it. If you were in business you would want somebody to do the collecting and do all that kind of pushing drudgery that belongs to collection. You could plan that which would be profitable and desirable, but to follow it up and collect it, invest it and keep it, would be a more difficult task. You ought always to have a collector and one not extra sensitive; but you would try to teach him good manners. You should marry a woman with a broader base of brain and more selfishness and force. It would be better for you and for the children.

People can put you off and make you wait. If they need to delay you will be the man they will operate on. Those broad-headed men they would pay promptly all they owed, but would pay you half and ask you to wait until next Saturday for the balance, and then perhaps divide it again.

You have better power for making literature or other useful products than you have for getting pay for it.

As a talker and as a writer you are at home, and if you would learn to dictate to a stenographer you would find it a very easy task to do literary work, because when rested you would have a chance to revise it, add to, or diminish it. Any field of literature you could cultivate in a reputable and successful manner and command an enviable position.

BIOGRAPHICAL.

EDWARD WILLIAM BOK was born in the seaport town of Den Helder, near Amsterdam, in Holland, Oct. 9, 1863, and he is, therefore, in his thirty-first year. He was reared amid wealth and luxury. His father occupied diplomatic positions at the Royal Court of the Netherlands, and was considered one of the richest men in Holland. But reverses came, and Edward was brought to America at the age of six, unable to speak a word of the English language which he has learned to write so fluently.

Young Bok was first heard of at the age of fifteen, making a wonderful collection of autograph letters and documents of famous personages which soon attracted the attention of the newspapers of America and Europe. The fame of the young collector quickly spread, and he became known as "The Prince of Autograph Collectors." This collection now numbers over 20,000 pieces, and is, without doubt, the finest and best selected autographic compilation owned by any private person in America.

At nineteen, he started *The Brooklyn Magazine* with not enough money to pay the printer for one printed page. He struggled against all obstacles, however, and made the magazine a success in little more than a year, selling it at a good price to a Brooklyn millionaire. Mr. Bok's editorial management of the *Brooklyn Magazine* was so fresh and original that

his work brought the magazine into public notice from the start. Even at this age, before he had attained his majority, he thus showed his tact as an editor.

Henry Ward Beecher soon after this became attracted to the young man, and the great preacher put much of his literary work into his hands. The closest confidence existed between Mr. Beecher and his alert protégé. At Mr. Beecher's death, Mr. Bok compiled and edited a "Beecher Memorial" for the family, to which Mr. Gladstone, the Duke of Argyl, Dr. Oliver Wendell Holmes, John G. Whittier, "Grace Greenwood," Julia Ward Howe, Edwin Booth, Dr. T. DeWitt Talmage, General Sherman, Bartholdi, Salvini, Ristori, and over one hundred and fifty other famous persons contributed. Its publication attracted the widest attention and won considerable literary standing for Mr. Bok.

He was the founder of a literary syndicate, which is known as "The Bok Syndicate Press," and is one of the most powerful literary influences in New York, employing over eighty of the most famous authors of America and Europe. More than 135 newspapers are its customers, and from this its enormous influence may be measured.

He became connected with the firm of Charles Scribner's Sons, and in four years he graduated through several positions until he was made chief of the advertising department of the house. In this capacity, his strong and picturesque advertisements of the house's books became quickly noticeable and directed renewed attention to this active and rising young man.

After receiving and declining several lucrative offers, he accepted the position of editor-in-chief of the *Ladies' Home' Journal*. He has proved one of the most enterprising and successful men now occupying an editorial chair, and his remarkable feat of quickly lifting the *Journal* into the public eye and placing it

among the first literary papers of the day, has perhaps not an equal in literary annals.

The secret of Mr. Bok's editorial success unquestionably lies in his singularly accurate knowledge of what the public wants and will read, and with one eye on his readers he keeps another on the press, the result being that *The Ladies' Home Journal* is one of the most widely quoted and best gratuitously-advertised periodicals of the day. He is also as good a business man as he is an editor.

Perhaps no literary man has the friendship and confidence of so many celebrities and the most famous authors. He has the name of every author of note at the ends of his fingers, knows them all personally, and can secure their best work where others will fail. *The Ladies' Home Journal* has a subscription list of three-quarters of a million.

It is interesting to a student of Phrenology and Physiology to study the organizations of these men, and then follow in their biographical sketches the work which they have performed, and then the fact that they have become settled and established, perhaps for life, with each other in carrying out a laudable and popular work, and have made perhaps the best exponent of woman's life and opportunity, which has ever been evolved, in the establishment and successful conduct of the *Ladies' Home Journal*.

Each in his way was a hustler. Each started a paper as owner and editor, and made it a success. Their capital consisted of their brains and their prophetic enthusiasm. The whole world was before them where to choose their habitation and their pursuit. Fertile in resources, patient and industrious, with will-power equal to any emergency, with tact and ingenuity sharpened by necessity, their efforts and their success may be regarded as phenomenal. Now they are happily united in a great, popular and profitable literary enterprise.

CHAPTER XVIII.

SHAPES OF HEADS AND OF HATS.

There is existing a very mistaken idea in the minds of thousands of intelligent people in regard to the shape of the human head at the point where the hat touches it, and that has arisen solely from the distorted outline which

the hatters' Conformatteur indicates at the top of the machine where the little outline is produced by a row of pin-holes indicating a shape, called by the hatters a Conform.

Reporters of papers have inter-

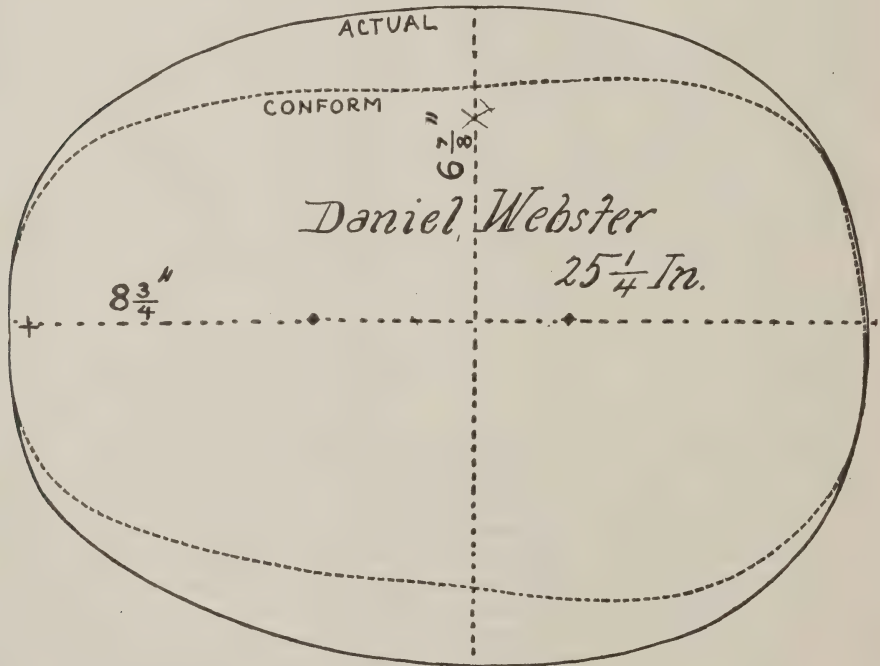


Fig. 141. Daniel Webster, represents a cross section of the head reduced one-half by the photographer. This was taken by means of the hat Conformatteur and the external line shows the shape and proportionate length and width of the great diameters of the head. It was taken from the only life cast for which he ever sat, and this external outline represents the exact form of the cast referred to. The circumference of the cast is $25\frac{1}{4}$ inches; the length from front to rear $8\frac{3}{4}$ and the width $6\frac{7}{8}$ inches. The left hand end of the outline, as we look at it, marked thus +, is the forehead, and this rule will apply to all the figures which are to follow. The inner dotted line of the head is called the Conform, which is the result of the action of the hatter's machine called the Conformatteur. A casual glance at that figure will show that it is much too narrow for its

length to compare with the outline of the real head. Outside of this interior dotted line is a reduced form of the larger outline, showing how much wider proportionately the head really was than the Conform represents it to be. And this reduction is accurate, because it is photographic. This gives the text of this whole topic, namely, that while the hatter's machine aids them in getting the exact size and shape of the head, its representative, the dotted outline, is misleading, while the form which immediately surrounds the dotted outline is the true shape of the head accurately reduced.

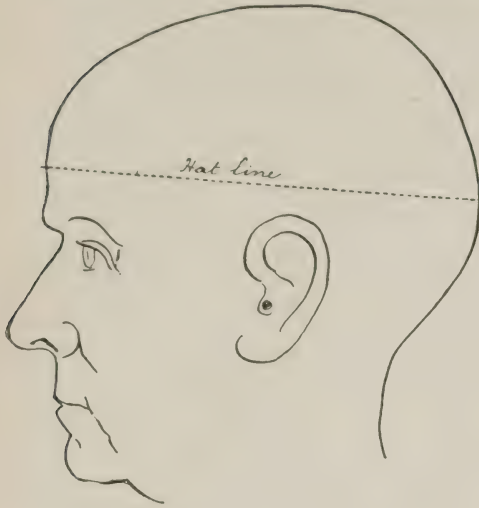


Fig. 142. This is a side view outline of the head and face of Webster from his bust. If the reader will turn to Fig. 1 of this series, January, '93, he will find this outline and other outlines of heads projected on the same scale, and also a back view of each, which will give a clear indication of the method of studying the forms and magnitudes of heads, and the significance of these facts. The dotted outline crossing from the center of the forehead to the center of the back head indicates the hat line, the place where the hat, properly put on the head, is worn. There is a dandy fashion of lifting the hat up from behind, but it is apt to blow off. The dotted hat line on this head shows where the Conformatteur is placed to determine the size and shape of the hat required.

viewed us with large numbers of these hatters' shapes or Conforms that had been printed by the dozen in different newspapers. They would bring them to us with the names cut out or concealed, and ask us what such a shape of head indicated, and wish us to write out for publication the character of some noted men based only on that form of the head which the hatters' Conformatteur produces.

Some twenty years ago there appeared an article in the *Scientific*

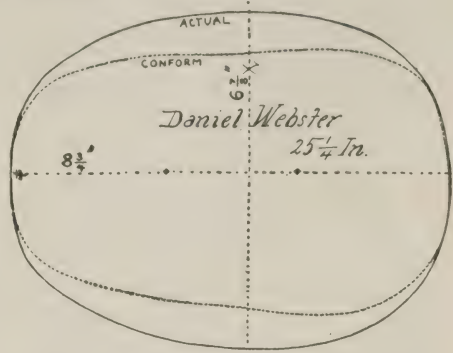


Fig. 143. Shows the central figure of Webster, 141, represented by the dotted outline, which is a reproduction of the Conform of Fig. 141, and around that is a reduced real form of Webster's head, and the contrast of the two shows the difference between the real shape of the head and the Conform which the instrument produces.

American, elaborately illustrated with a large engraving of the hatters' Conformatteur, with a specific description of the machine, and a large number of "Conforms" were published, with the names of the persons from whose heads they were taken, and these were represented as the true form of the heads. We were astonished that a scientific mechanical journal should accept the statement as a fact that those Conforms represented the real form of the heads in question. I kept a copy of the *Scientific American*, thinking sometime I would disabuse its readers in the matter, and it is not more than a year since, when, in overhauling some papers I met with it. It may have been a "communication," and the engravings furnished by an interested party, but the misleading impression which the text and the illustrations afforded should never have passed a clear-headed man worthy to edit such a paper. The Conformatteur does not and cannot make a small Conform of the same shape as the head that

serves as a model if the head is in any degree longer than it is wide. Only with a model perfectly round will the Conform be shaped like the model. Yet honest and intelligent hatters who have had twenty years experience will earnestly assert the contrary, but three minutes explanation will show them how easy it is for intelligent honesty to be mistaken.



Fig. 144. A perfect circle represents a perfectly round head, if such a head could be found, and some approximate it. We had a figure made from a piece of board exactly circular, and put it into the Conformatateur, and, as we expected, it developed a Conform which was a repetition of the perfect circle, and this proves that the elliptical instrument applied to an elliptical head exaggerates the difference between the length and the width of the representation, reducing the sides just as much as the front and rear are reduced, proving that the Conform, so called, does not represent the real shape of the head, unless that head were perfectly round or perfectly square, and then it would represent it.

To aid me in directing public sentiment to the real facts in this matter, I have been most kindly aided by those well known popular and prosperous hatters, the Messrs. Dunlap & Co., of 180 Fifth avenue, New York, who have furnished every facility by applying their Conformatateurs to casts of heads from our phrenological collection, especially that of Daniel Webster, the only life cast ever taken of him, showing the absolute size and form of his wonderful head. Those gentlemen have also permitted us to have the use of

the Conforms of not a few of their noted customers, by means of which we secured outlines of the head the size of life, that enabled us to make the record of the size as well as of the forms of the heads.

In the case of the head of Daniel Webster, we show the relative length and width and the exact form of the head where the hat fits it. The Conform, so called, in the center is the production of the hat Conformatateur in taking the shape and size of the head, and the dotted outline shows that Conform, but in photographing the real shape of the head and reducing it to the length of the Conform as a means of comparison, it will be perceived that it shows an outline much broader than the form which is represented by the dotted outline. This is a perfect reduction by photograph from the large outline, and represents the true form of the head, and the dotted outline of the same length is an exhibition of the shape of the head distorted as the hat Conformatateur produces it.

These Conforms, technically so called, are not really the form of the head. If one would look at a Conform, which is about half as long as the head and one-third as wide, and compare it with the open hat of the original before him, he would see instantly that it is much narrower in proportion to the length than is true of the hat of the person which is shaped to the head.

The reason why these Conforms, so called, are so much too long for their width is that the machine is an ellipse and the head which is placed in it is also elliptical, and the way the machine is made to act necessarily reduces the sides as much absolutely, not proportionately, as it does the length. If the head were perfectly round the hatters' machine would make the Conform perfectly round, because it would reduce the figure equally on every part of it.

The machine, as some readers may not know, is made something like a

hat, the walls of which are composed of a great number of narrow pieces of wood, the height of a hat, surrounded by an elastic spiral spring, and then the wall is constructed so as to move in and out to fit any head. This adjustment on the head gives the perfect size and form of the head or inside of a proper hat.

The vertical pieces constituting the walls of this machine are turned at right angles above the head in the top of the machine, and approach the center and each other by radial, convergent lines, and at their ends surround an oval space over the center of the top head. At the inner end of these tapering arms, each having a standing needle point, look like a picket fence around a small fountain.

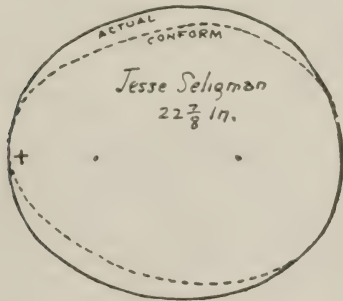


Fig. 145. Jesse Seligman, the distinguished banker, recently deceased, had a $22\frac{7}{8}$ -inch head, and in form it approximated the round. He was of German stock, and they have broader and shorter heads than some other nationalities. And this shows that the Conform with the dotted line approaches the true form of the head more than was the case with Webster's or the others that we shall represent. This fullness of the side head gave him the push, policy and financial capacity which enabled him to begin peddling in a strange country with a basket, then a pack and to become a banker and a millionaire. He had also the intellect and the moral top head which made him a philanthropist and in middle life a peer and accepted associate of the great and good of the land.

When the Conformatteur is being fixed upon the head, those converging arms are drawn away from the center according as the head presses out the wall pieces, and the little

space at their ends is contracted and expanded by the sliding in or out of those arms from the center, thus giving shape to the open space fenced in by standing needle points.

While the Conformatteur is thus fixed a piece of stiff paper or thin cardboard is laid over this row of needle points, and a padded cover fixed by a hinge is pressed down upon the paper and the needle points perforate the paper, making a shape which the hatters call a Conform. This paper being removed and trimmed according as the perforations, show its form. It is then placed in another machine called a Formillion. This apparatus (the head not being in the way) can lie flat on the table and is made up of pieces of wood made tapering and converging toward the

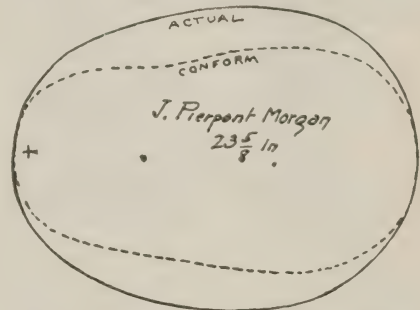


Fig. 146. J. Pierpont Morgan, the banker and business man, has a head measuring $23\frac{5}{8}$ inches in circumference—it is a broad head and yet long. It is a longer head in proportion to the width than was the case with Seligman, and the Conform represented by the dotted outline shows a greater contrast with the solid line around it. Intellectual sagacity, scope of mind, prudence, policy, sociability, courage and thoroughness are his leading characteristics. But how the Conform is stretched out, and how it varies from the true form, as seen when it is reduced in length to that of the Conform!

center in which the Conform is placed on two centering points to hold it firmly.

When these converging arms are gently placed against the edge of the Conform, set screws are turned which hold them firmly, and this Formillion then exactly represents

the form and size of the head when surrounded by the Conformatteur and the hat block is made to conform to it.

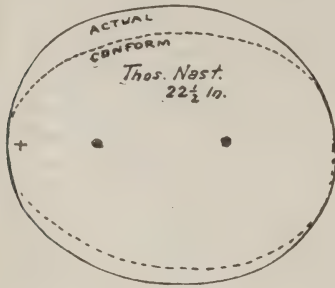


Fig. 147. Thomas Nast, the caricature artist, whose head measures $22\frac{1}{2}$ inches in circumference, has a head bordering on the round, broad and short type, and the Conform in his case approaches the true outline form of head which surrounds it more nearly than is the case with J. Pierrepont Morgan.

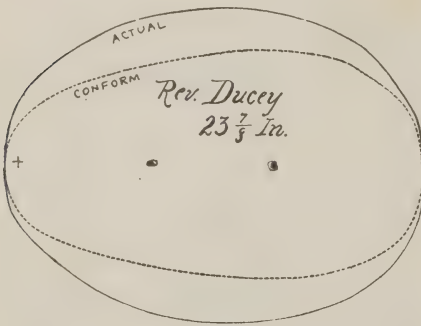


Fig. 148. Rev. Mr. Ducey has a long head, running towards the intellect from the opening of the ears and from the ears backward in the social side of character, but in the side head he is not as strong in the selfish elements as those who have a broader head in proportion to the length.

This development indicates intellectual penetration, the power to gather and hold knowledge, and bring it into use as may be required. His head measures $23\frac{7}{8}$ inches, and belongs to the class of very large heads, and yet that size is liberally made up in length of head rather than of breadth; still the head is amply developed in the sides, and he has therefore great administrative ability.

The Conform appears to be very long and comparatively narrow, but the true form of the head in the continuous line around the dotted line shows the difference between the real shape of the head and the Conform.

The side-view portrait of Daniel Webster was taken by photography from the bust of Webster himself and is accurate; the dotted line that runs across from the front to the rear is the "hat line," and the Conformatteur is put on the head to fit on the line where the hat fits, and thus we get the shapes of all the heads we have presented, and the figures, $25\frac{1}{4}$ inches for Webster, $22\frac{7}{8}$ inches for Seligman, and $23\frac{7}{8}$ inches for Vanderbilt represent the exact circumferential measurements of these heads.

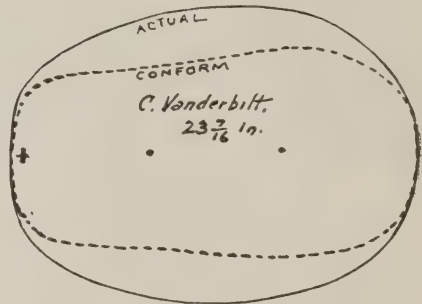


Fig. 149. Cornelius Vanderbilt, the great railroad man, whose head is $23\frac{7}{8}$ inches, shows a decidedly large brain, indicating great length fore and aft. The intellectual region in the front, and the social region in the back head being large give length to the development. His head is wide enough in the center to give him secular wisdom and energy of character. It is a very well balanced head, but the Conform, shown by the dotted line, is very much lengthened by the process of taking that figure by the hatter's machine. The real form of the head being reduced so as to contrast more easily with the Conform, shows how much wider the head really is than the Conform represents.

The outlines we present are taken by photograph, and each occupies the same distance from the instrument, so that they are relatively the correct size; Webster's being the largest and the others varying according to the measurement of the head.

Mr. Seligman's head approximates the round, and the dotted line of the Conform is more nearly round than any others present.

C. Vanderbilt, J. Pierrepont Morgan and the Rev. T. J. Ducey have longer heads than Seligman in pro-

portion to the width, and the dotted line Conforms are elongated and narrow. The most extraordinary one is that of Thomas Shandley, which was made on a cast of his head and which we know to be correct; yet people have brought us such outlines as Shandley's and wanted to know what such a head indicated.

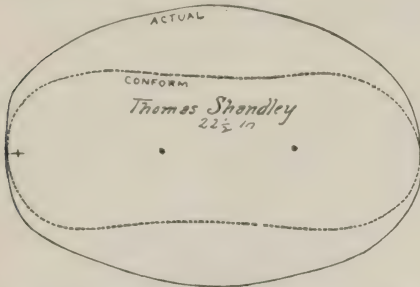


Fig. 150. Thomas Shandley has a peculiar development of head. It is long for the width of it, and the Conform, bounded by the dotted line, looks more like the sole of a shoe than like the inside of a hat, or shape of a head.

The proper form of the head being reduced by photography to the exact length of the figure of the Conform, shows by contrast the difference between the Conform and the head itself.

For the hatter, the Conformatteur is a valuable institution, but as showing the real form of the head by the dotted line Conform it does not represent it. If a head were perfectly round then it would represent it, but as nearly all heads are elongated, some more and some less, the variation is marked and relatively misleading.

An oblong or oval body subjected to the treatment of the Conformatteur in its process of reduction to the size which is called the Conform, lessens the width of the small figure as much as it lessens the length. For instance, in treating a head which is eight inches long and six inches wide, if an inch be taken from the front and rear the figure loses one-quarter of its length, and an inch taken from each side of the head lessens its width one-third. Take two and a half inches from front and rear and there are three inches left. Do the same by

the sides and there is left but one inch. It is three times longer than it is wide. At first there was the same real difference, but the proportionate difference in the outlines as shown is astonishing. We have many more specimens for future use in this line of work.

Fig. 151 and Fig. 152.—These two portraits may often be seen on the streets. The first is a broad head, and did not have the head measured by the Conformatteur, the hat not shaped to his head, and a finished hat cannot be put into shape readily. It will be seen that the hat at the band is bulged out and the brim is buckled and twisted because the sides are pressed out and the rim has to buckle because the hat is bulged midway.



FIG. 151. BROAD. FIG. 152. NARROW.

Fig. 152 is a narrow head, easily compared with the other, and the hat seemed to be well fitted to the head and is not bulged out at the sides, and the hat looks as if it had been fitted by the modern Conformatteur, while the other one looks as if the hat did not belong to him and as if he had laboriously pulled it down, thus buckling the brim into awkward shapes.

The organs of the selfish propensities, above and about the ears, give breadth to the head, and their deficiency gives flatness to the head. Figs. 145 and 147 are like 151, while Figs. 158 and 159 are more like 152. The broad headed men are those who are efficient, severe, thorough, and self-protecting. The narrow and long heads are more frank, social, and usually more developed in the intellectual region.

CHAPTER XIX.

HEADS AND HATS CONTINUED.

THE hat does not determine accurately the size of the brain because it measures only the circumference of the head where the hat touches through the middle of the forehead and on a level with the middle of the back head. A high head gives reason, moral sentiment firmness and ambition and of these extra developments the hat takes no account; yet a hundred men wearing large hats will take the lead of a given number who wear hats of only average size.

Figs. 153, 154. A. M. Munkacsy, the celebrated Hungarian artist, renowned for his great pictures, "Christ before Pilate" and "Christ on Calvary." This head is nearly round, consequently the Conform strongly approaches the real shape of the head. The left side of the head seems to be larger than the right side; that is, the left hemisphere of the brain was larger than the right.

The peculiarity of this head is the

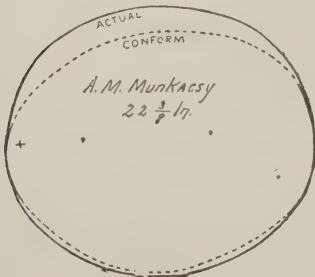


FIG. 153. A. M. MUNKACSY

enormous breadth of it. Where the hat touches the head it crosses the

region of Ideality, Sublimity, Constructiveness, Caution and Secretiveness. The portrait, Fig. 154, show-

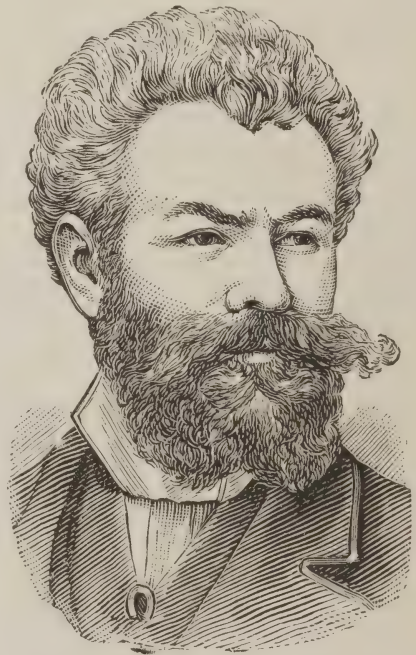


FIG. 154. A. M. MUNKACSY.

ing the whole head, indicates great breadth of face and breadth of head, and not so very much length.

Figs. 155, 156. Col. Aaron Burr, third Vice-President of the United States, and whose life was clouded and his memory soiled by the unfortunate duel with Alexander Hamilton, who fell at his hands.

He was born in Newark, N. J., in 1756, died at Staten Island Sept.

14, 1836. His father and mother both died within a short time of each other, leaving their two children

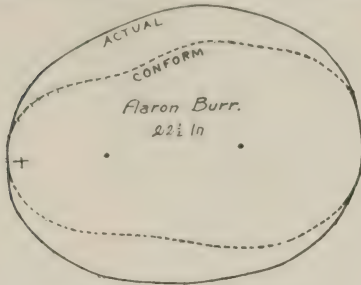


FIG. 155. AARON BURR.

scarcely more than infants, with plenty of means, in the care of an uncle. Aaron was a troublesome boy



FIG. 156. AARON BURR.

and his history might have been far different had his distinguished and talented parents been spared to give him guidance, and he might have been a boon and a blessing instead of a disgrace to his parents and himself and a blot on the escutcheon of the nation. He was brilliant as a scholar and precocious in talent, entering Princeton College at 13 years of age. He entered the revolutionary army under General Benedict Arnold in his

expedition to Canada in 1777, and for gallant conduct was made Lieut.-Colonel. He was in the U. S. Senate in 1791, Vice-President under Jefferson in 1801, fought the fatal duel with Alexander Hamilton in 1804, and was tried for treason in 1806. He was socially dissolute and lascivious, lax in principle and ostracised by his Government and the public and detested by the moral and religious.

The middle section of the head is particularly broad, showing large Destructiveness and Secretiveness. His intellect was intense and acute. He was an able man, the son of the Rev. Dr. Burr, President of Princeton College, and grandson of the great Jonathan Edwards, D. D., also President of the same college.

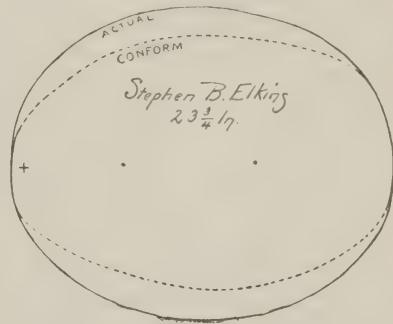
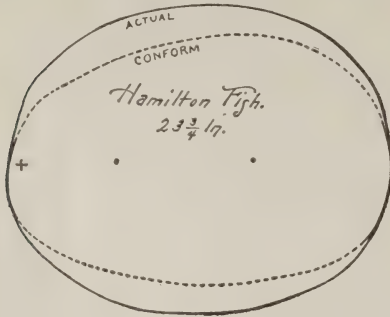


Fig. 157. Stephen B. Elkins, born in Ohio in 1841, studied law, delegate in Congress from New Mexico, 1873, Secretary of War under President Harrison in 1891, resides in West Virginia and conducts large business enterprises. He is a man of national fame and of eminent ability. The width of his head indicates force of character, executiveness, thoroughness, prudence, policy, skill, ingenuity and strong social affections. Few men are as much respected by all classes; none are more popular.

Fig. 158. Hon. Hamilton Fish, Governor of New York 1849-51, Secretary of State under General Grant, 1869-77, U. S. Senator 1857. Born in New York 1803; died, 1892. He had a large head, measuring 23 3/4 inches. This outline indicates also a

broad head as well as a long one, power, force of character and that



steady momentum which reaches results without much parade or sensation.

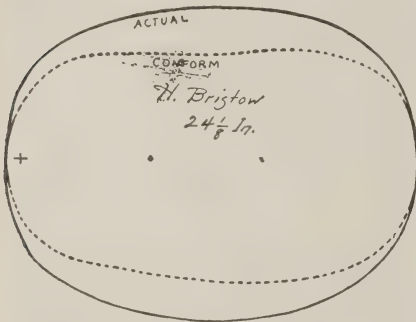
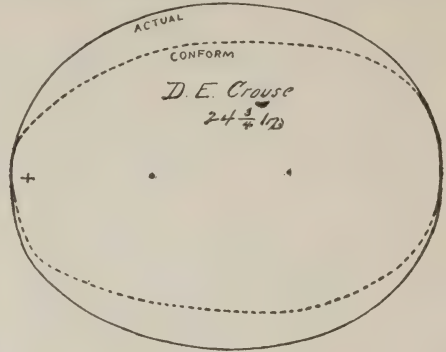


Fig. 159. Ex-Secretary Benj. H. Bristow. Born in Kentucky 1832, studied law, colonel in the Union army in 1861, Secretary of the Treasury under President Grant 1874, resides in New York. A very large head, 24 $\frac{1}{8}$ inches, and appears to be, where the hat fits it, of uniform and appropriate development. The head is wide at the region of the temples, indicating scientific capability in the direction of engineering. His head is broad at the sides, showing power, executiveness, force of character. It is long and broad at the back head, indicating a great development of the social disposition.

Fig. 160. D. E. Crouse, the well known millionaire, residing at Syracuse, N. Y. His head is naturally large, but is amply developed in every region. It is pinched nowhere. The anterior section shows far reaching thought and talent. He appears to

have strong Constructiveness and Acquisitiveness and ample development of Secretiveness and Combative-



ness. These give skill and ingenuity, financial capability, thoroughness, efficiency and enterprise. The back head is long, showing ample social power, and a tendency to make friends and serve his friends.

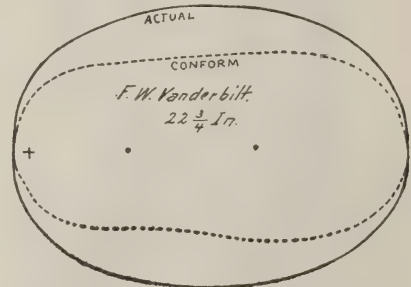
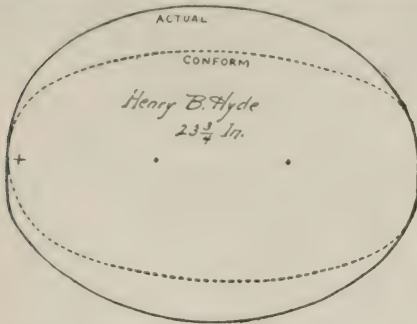


Fig. 161. Fred. W. Vanderbilt. This head is of rather large size, measuring 22 $\frac{3}{4}$ inches, and is also long, showing less relative development of the selfish feelings than of the intellectual and social. The back head is particularly long, and he ought to be known for social tendencies and ability to win friends and hold them. He has a full share of the element of Acquisitiveness or love of property, and has capacity for scholarship, taste and refinement.

Fig. 162. Henry B. Hyde, President and largest stockholder of the Equitable Life Assurance Society of New York. His head, measuring 23 $\frac{3}{4}$ inches in circumference, is almost "very large," and from the actual outline of the head and from the

Conform, we judge that he is a man of ability, clearness of thought, ingenuity, practical skill, financial

appears to be harmonious in its outline. He is ingenious, intelligent, active, can keep a secret, and show himself friendly and confiding.



ability, policy, prudence, vigor, courage and strong social elements.

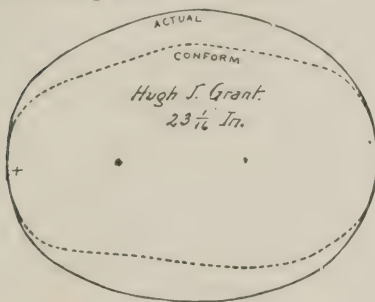


Fig. 163. Hugh J. Grant, ex-Mayor of the city of New York, has a head 23 1-16 inches in circumference, and seems to be pretty well developed in the sides in the neighborhood of the organs of Destructiveness, Alimentiveness, Acquisitiveness and Secretiveness. He has capacity for business, for financial operations and for energy of character.

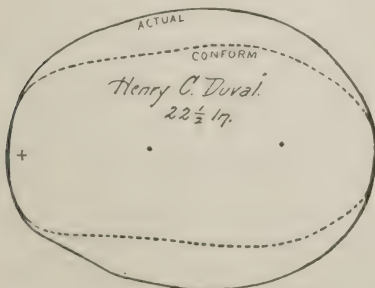


Fig. 164. Henry C. Duval, private secretary to Chauncey M. Depew. His head is from full to large, measuring 22 1/2 inches, and



Fig. 165. Joseph Pulitzer, proprietor and publisher of the *New York World*, has a large head, measuring 23 inches, and it is especially broad for the length, indicating strong elements of energy, selfishness, push, policy, prudence, financial ability and intensity of intellect.

Born in Hungary, 1847; private soldier in the Union Army, '63-'65; was a journalist in St. Louis, Mo.; studied law and later became an editor. In 1883 he purchased the *New York World*, then of small circulation and depleted influence. In 1890 he erected the *World* building, the tallest in the city, and has also run up the circulation of the paper to an enormous height, evincing great energy and executive ability in the management.

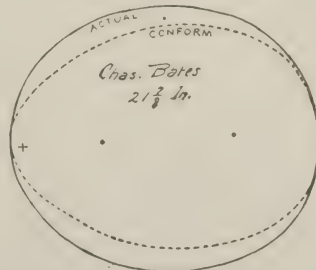


Fig. 166. Charles Bates, well known horse dealer and man about town, whose escapades have filled the columns of the *New York press*. His head measures 21 3/4 inches, which is about the right size for a man who weighs 150 pounds. His head is

broad for the length. He is naturally a man of policy, tact, is secretive, friendly and agreeable in his manners, and fond of society and notoriety.

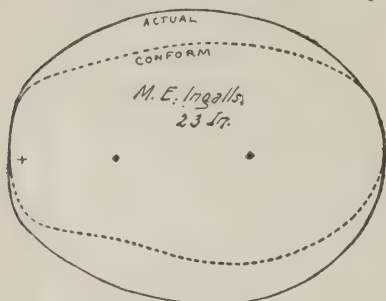


Fig. 167. M. E. Ingalls, President of the C. C. & C. Railroad, and interested in the Vanderbilt system of roads. His head measures 23 inches, and is therefore large. It is well stored in the region of the temples, which gives a talent for planning, for mechanical and engineering capability and understanding of complicated financial affairs.

The region of Acquisitiveness is broad, so also Secretiveness and Executiveness. He is a man of undoubted efficiency, push and enterprise.

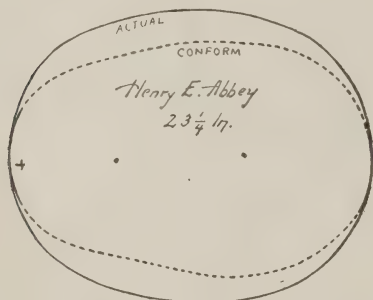


Fig. 168. Henry E. Abbey, theatrical manager, widely known for his professional and business relations with Patti and other great singers, and his connection with the Metropolitan Opera House Troupe. The head is not only large, but it is broad in the anterior section, wide in the region of the temples, Imagination, Constructiveness and fondness for music and art, and the capacity to guide and regulate complicated

affairs and make money out of them. He has smoothness and policy, prudence and pliability, and a great deal of sociability, and he understands character and is naturally popular with the public.

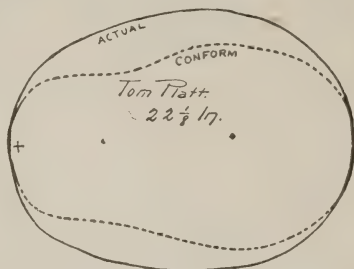


Fig. 169. Ex-Senator Thomas C. Platt, with a head of full size, 22½ inches; he has an intense temperament, is wiry and tough, is full of practical sense and tact and has a great deal of policy and push. He resigned his seat in the U. S. Senate to aid Roscoe Conkling in opposition to Garfield, and both, it was thought, sacrificed future success; and a crazy assassin finished the quarrel by the murder of Garfield.

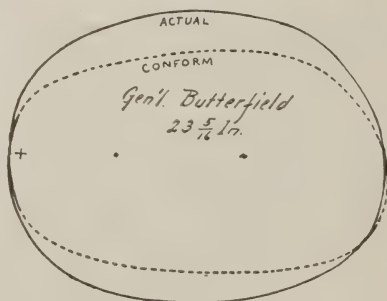
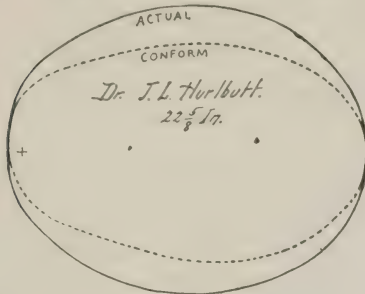


Fig. 170. Gen. Daniel Butterfield has a large head, measuring more than 23 inches. It is broad in the front. He has large Mirthfulness, strong Causality, ability to think in the direction of complications and combinations. Could be a good mechanic or engineer if called to that field. He has large Acquisitiveness and would be apt as a financier; has guardedness and prudence and energy and vim, and a great deal of social feeling, and power to make and to hold friends.

Fig. 171. Rev. Jesse L. Hurlbut, D.D., one of the originators of the celebrated Berean Sunday School Lesson Leaves, founder of the Normal Class for Sunday School teachers, etc. This head is of more than full



size, but its peculiarity is harmony of development and co-ordinate activity. Every part co-operates with and sustains other parts. It is a very handsome form of head, and he ought to have a character of great smoothness and excellence.

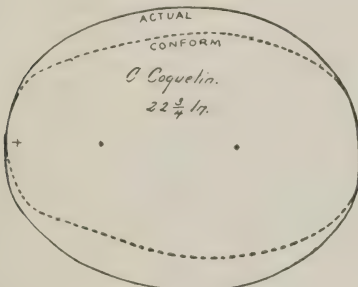


Fig. 172. C. Coquelin, the celebrated French actor. A head measuring $22\frac{3}{4}$ inches, which is rather large. This outline of head shows harmony of development, intellectual activity, imagination, policy, force and love.

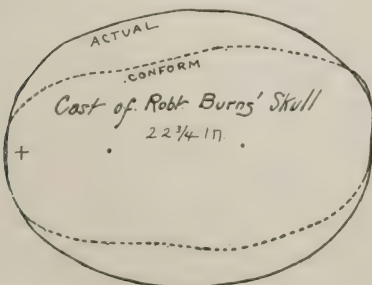


Fig. 173. Cast of Robert Burns' skull, measuring $22\frac{1}{4}$ inches. A very

large skull, and amply developed in the anterior, the middle and the posterior regions. The back head from the opening of the ears is particularly long, and the regions of Ideality and Constructiveness being ample show the basis of poetical imagination; and then the social nature is so uncommonly strong, we have the foundation of his great social power.

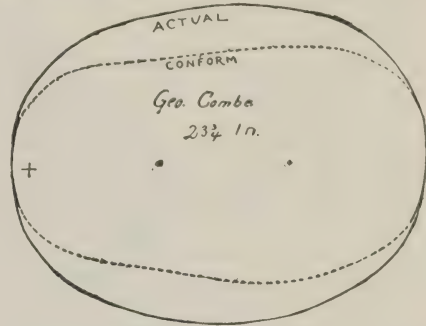


Fig. 174. George Combe—remarkable for its size, $23\frac{1}{2}$ inches, and also remarkable for the uniform development of the anterior, middle and posterior regions. This was taken from the cast of his head. The moral developments are preëminently indicated, and his whole character was elevated and excellent and his intellect clear, broad and vigorous.

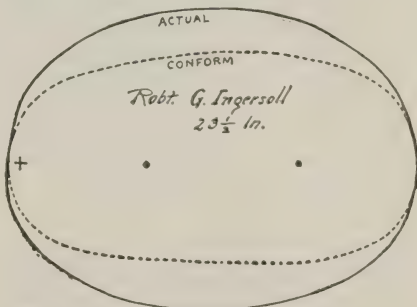


Fig. 175. Col. Robert G. Ingersoll, lawyer and lecturer. A head measuring $23\frac{1}{2}$ inches in circumference. The back head is long, indicating strong social development. He is a keen reasoner and an eloquent orator. The head is rather long for the width, showing that intellectual and social elements are more marked than the faculties which indicate force.

CHAPTER XX.

TALENT AND CULTURE.

HON. EDWARDS PIERREPONT,
LATE MINISTER TO ENGLAND.

This organization was an excellent one. The head was large, the face strong and substantial, giving adequate support to the head, and the quality of the organization, bodily and cerebrally, was admirable. There was a wealth of dark, strong hair, indicating the Motive Temperament; the distinctness of the features and the strength and altitude of the body evinced an adequate development of that temperament. The muscles and bony framework were good. He had power and endurance for the emergencies and labors of life. The largeness of the brain indicates the Mental Temperament, and the build of the brain was in harmony with that temperament. The Vital system also was well represented by the amplitude of the chest, by the good development of the base of brain, by the form and massiveness of the face. So the power to convert food into nutrition and to use that nutrition as motive power was rather a marked manifestation.

The strength of that countenance is shown by the width of the cheek bones, by the strength and distinctness of the nose, by the prominence of the eyebrows, by the strength of the chin and by the general width of the head. The quality of the organization, as made up by the combination of the different temperaments, constituted a basis for the exalted talent and superb character of which

his whole life was a brilliant exposition.

He was of good stock. The two family names which constitute his personal name, Edwards and Pierrepont, have sustained and graced the history of letters, of law, of divinity and science in this country. There have been no better names than those that are blended in his stock and blood, and the positions which he occupied, the titles and distinctions which he earned and has borne, and which, till his death two years ago, his life exemplified, and whose departure left fragrant for history, constitute a memorial for his country and his friends which is seldom equaled and never surpassed. He was a great, a capable and an excellent man. His physiology was harmonious. His mind, brilliant and strong, worked easily and effectively. His talents and characteristics made him welcome in any circle, and acceptable in any field of effort where capability and integrity were required.

Phrenologically speaking, there is not a more practical, intelligent and critical intellect to be found. All the perceptive organs were amply developed. He gathered knowledge readily and understood its facts and their forces. He had a wonderful memory of the historical, of facts, of places, and the practical working of all the factors of influence.

He was an orderly thinker, accurate to a fault, clear-cut in his judgments, fertile in resources ingenious, skillful, and intellectually an all-around man.

Observe the width of the region of the temples; he might have made the best engineer the world has ever seen; he might have been excellent in sur-

knowledge, to collate, analyze, and combine it into forceful statement and vigorous argumentation. As a lawyer he was endowed with the



FIG. 176. HON. EDWARDS PIERREPONT,
LATE UNITED STATES MINISTER TO ENGLAND.

gery, physiology, chemistry, natural philosophy, history, belles-lettres, anywhere. He might have been an inventor with Ericsson or Edison, a historian with Bancroft; he might have been a poet, a mechanic, a financier, a dramatist. He had the head of an editor, the power to gather

ability to find out and appreciate the truth; his biography shows how he held positions requiring eminent talent and wide culture, and that he filled them admirably. He had large Benevolence; the front part of the tophead rises highly.

He was not a copyist; he studied

the laws and qualities and conditions and reasons of things, and adapted himself to them according as he judged proper without inquiring to know how another man would do it or had done it. While he was a conservative in many ways, he was radical and reformatory; he dared to seek new paths, to make new tracks, but they were always on an ascending grade. The breadth of his head gave him executive force, the kind of power that resisted opposition or overcame it. He had a wise reticence, ability to conceal his own purposes, and watch the manners and management of others to learn their drift and purpose, and then ability to counteract the undercurrents of opposition. And, without seeming to be suspicious, was able to guard against subterfuge and finesse. He would make an argument in such a way as to shut all loopholes, avoid pursuit and evade interjected opposition. Such a head as that in law would be wise and clear and historical and full of precedent and knowledge of all that would serve his purposes or guard his position against surprise or encroachment. That head is a beau ideal of diplomacy, not that mean, tricky unfairness which diplomacy has sometimes been disgraced by, but that polite, smooth, comprehensive sense of the wants of others, and the proper way of treating their side of the case, and the safe and judicious method of preserving intact the rights of his own side, and fortifying every point he made; and thus, as a diplomat, he would be smooth, easy to get along with, and, at the same time, he would be all the time molding his cause and claims, so as to secure what he had a right to seek, and put safeguards around his own cause for the future. He never was asleep to the interests which he was protecting or seeking to promote.

His Firmness and Veneration were large. He was steadfast, determined, respectful and polite; and was a reader of character rarely equaled.

His Cautiousness rendered him prudent; he had a good degree of Self-esteem; hence it was easy for him to maintain an equable demeanor in elevated and responsible positions.

He must have had rather large Destructiveness and Combateness; these gave to his mind, as muscle gives to the hand, a grip and hardness. Hence, there was a certain dynamic power, smoothly wielded, that reached successful results, and commanded respect, and ministered to his own prosperity or that of his cause. He resembled his mother; hence he had a gentleness and smoothness which was feminine. He had an intelligence that was almost ubiquitous; he could converse on many and varied subjects, and seem an expert in all. The richness of his intellectual discourse was masterful and commanded the respect of people who are expert in their peculiar fields, and recognized in him an equal even in their own department. He could converse and entertain and be the chief speaker, or he could wisely question those who knew much in certain directions, and become master of all they could communicate, without manifesting any want of information on the subject. And his memory enabled him to haul in and coil, as sailors do ropes, the line of argument or instruction from any quarter of the realm of knowledge; and his memory enabled him to reproduce, to pay out the line when it might be called for.

His Language was excellent, voluminous, copious, compact, clear-cut; and, backed by such memory and discrimination and criticism, and urged with the earnestness that belonged to his nature, his public speeches, his written arguments, his analysis of causes in court, and his opinions from the bench, were models of vigor, clearness and completeness.

BIOGRAPHICAL.

Hon. Edwards Pierrepont, who was born in North Haven, Conn., November 4, 1813, was descended from a

great family named Pierrepont in England, members of which settled in Boston, Mass., and New Haven, Conn., about 1650. Sarah Pierrepont married the great Jonathan Edwards, D.D., President of Princeton College, and Timothy Dwight, D.D., so long President of Yale College, was her grandson; thus the Pierrepont, the Edwards and the Dwight families became united in blood. Sarah Pierrepont Edwards' brother, Joseph Pierrepont, was the great-grandfather of our subject, Hon. Edwards Pierrepont. He graduated from Yale in the class of 1837, studied law in the New Haven law school, settled as a lawyer at Columbus, Ohio, in 1846 removed to New York, in 1857 was elected Judge of the Supreme Court of the City of New York, in 1860 resigned his judgeship and returned to the practice of his profession and public affairs. In 1862 he was appointed by President Lincoln as a commissioner, with Major-General Dix, to try prisoners of State; in 1864 he led in organizing war democrats in favor of the reelection of Lincoln; 1867 was elected a member of the Constitutional Convention of the State of New York; in 1867 was selected to conduct the prosecution of J. H. Surratt for the murder of President Lincoln; in 1871 he received the degree of LL.D. from Columbian College, Washington, D. C., and also from Yale in the same year. President Grant appointed Judge Pierrepont in 1868 Attorney of the United States for the District of New York. In 1870 he was one of the most active of the "Committee of Seventy" against the "Ring Frauds" of New York. In 1873 Judge Pierrepont was appointed Minister to the Russian Court, which he declined. In 1875 he was made Attorney-General, and remained in President Grant's Cabinet until 1876, when he was appointed Minister to England. In 1878 Oxford conferred on Mr. Pierrepont the degree of D.C.L., the highest honor in its gift. He died

in the city of New York, March 7, 1892.

CHARLES E. WEST, LL.D.,

FORTY YEARS PRINCIPAL OF BROOKLYN

HEIGHTS FEMALE SEMINARY.

This picture was taken of the venerable Professor on his eightieth birthday, and we judge that such a majestic masculine head and face, ample in development, rich in endowment, would command the respect of an observer instantly and everywhere. We have no doubt that this in its prime was not only a manly but one of the handsomest faces of his generation. He has a delicate and yet a commanding nose, which rises high at the bridge; it is well formed at the point and at the wings, and indicates at once dignity, strength, intelligence, goodness and grace. The firmness of his upper lip, the length and breadth of it, and its excellent model; the amplitude of the under lip, indicating sociability and affection; the breadth, prominence and strength of the chin, are marked elements in the physiognomy, which will assure an observant stranger, win confidence and command respect. He has a mild and steady eye; his ample forehead indicates capacity for acquiring and holding knowledge, and for the ability to dispense information and especially to comprehend the breadth and strength and scope of subjects and topics involving great reasoning power and vigor of mind.

The side head seems long and high, and yet not so very broad. He would command anywhere respect and confidence in his own field of service as principal of a young ladies' seminary. He was doubtless regarded by his pupils as a strict disciplinarian, yet not as a severe and hard master. Pupils in the glow and enthusiasm of feminine youth and hope would accord to him the respect which his age and talents merited; they would regard him as a father, as an elder brother, as a friend, and give him the

respect which his position warranted, and the sincere fealty and duty which their position as pupils naturally required.

The reader will see that the head in front is high; that the forehead is broad and nearly vertical; that from the opening of the ear forward the length is great, showing power of observation and memory and ability to reason soundly upon facts and experiences. The top head, running along back clear to the crown, is well elevated. Benevolence in the front part of the top head is large, indicating kindness, and just in front of that organ Human Nature is very strongly manifested, giving the ability to judge of the qualities and characteristics of strangers, and a certain tact, combined with frankness, to relate himself to others in a way that would command their respect and win their confidence and at the same time their friendship and affection.

In the back part of the top head, where Firmness and Self-esteem are located, there is a good development, showing great steadfastness, inspiration, devotion to duty, and the dignity which sustains stability and integrity.

His Conscientiousness is decidedly large. His word was law; he was believed to be upright and correct in his methods and principles. As he has retired from his position as principal we may, in these respects, speak of him in the past tense. He was dignified, upright, kindly, intelligent, frank, equitable, straightforward, and thus influential.

The back head is amply developed, as we judge by the features, and his long service in such an institution in such a place as Brooklyn Heights is evidence that he had strong affection; he could win friends and hold them; he had a loving and affectionate disposition; he had integrity and dignity, prudence and thoroughness. He has the natural development of an umpire, and while we think his discipline was strict it was parental, it

was judicial, it was the end of the law; it was firm but kind, sound but smooth, correct yet not tyrannical. He might have been a good judge on the bench; he might have graced the pulpit, the healing art or the editorial sanctum. As an educator he was a success; as a citizen, acceptable and honored.

The physiognomy has been modified by age and the shortening of the teeth, so that the upper lip does not occupy so commanding an attitude as it did in earlier life; but where can a man be found eighty years old, with a more comely face, with a more dignified mien, and a kindlier and stronger expression?

Among the reasons why so magnificent a picture can be derived from a man eighty years of age, and why he should maintain his youthfulness so as to enjoy now a trip to Europe at eighty-five, may seem surprising to most people. In the first place he had a capital organization, inherited strength, endurance, and, above all, harmony of physical development. It does not matter so much about the size of the man or the animal as about the harmonious relations of the different vital functions in regard to the health and the length of life. But it does make a difference whether the man is large or small, even if he is harmonious, in regard to the amount of duty he is able to perform, the load he is able to carry and the might of muscle and of mind which he is able to manifest. It is said that preachers are longer lived than other men. In the State of Massachusetts the statistics show that clergymen live longer than other people. There are reasons for that aside from the mental activity which they have to manifest. One reason is that clergymen have to amount to something mentally and physically to get an education; they must have manliness and talent to hold a place from early manhood to old age; they generally behave better and live more equable lives than other people. They go

into fewer dangerous occupations, such as breaking horses, felling the forest, blasting rocks and climbing the masts in sea-faring life. But the reason why Prof. West has so young and so healthy and harmonious a face,

mainly with their cheery and hopeful enthusiasm. Intimate relationship with young life serves to cheer, sustain and prolong youthfulness and health to old age.

When ready to put this matter in

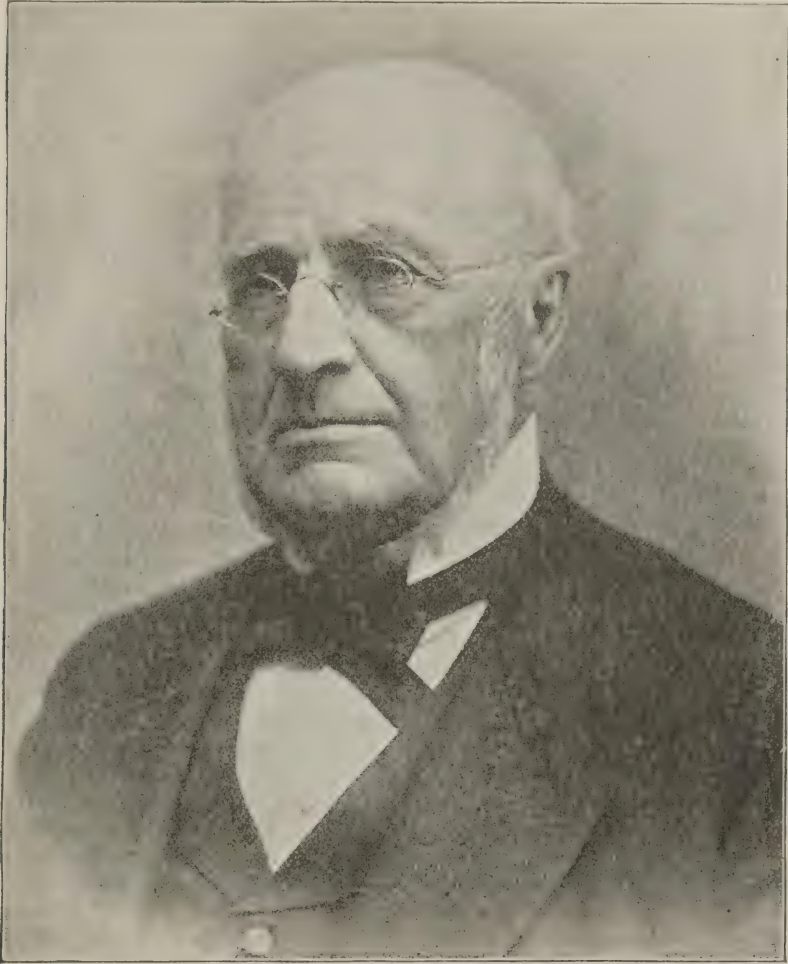


FIG. 177. PROF. CHARLES E. WEST,
FORTY YEARS PRINCIPAL OF BROOKLYN HEIGHTS FEMALE SEMINARY.

and is so youthful at his great age, is that he has not only had an active state of mind, every faculty has been in healthful exercise for a long life, and the body sympathizes with the mentality and is stimulated to health and vivacity by the activity of the mind, but he has been among young people and has sympathized inti-

the printer's hands, I went to the house of Prof. West and was informed that he had started an hour before for a trip to Europe, and that he was eighty-five years of age, hale and hearty. Thus I failed to get the date of his birth and the time of his commencing and closing his career as a teacher.

CHAPTER XXI.

TALENT VARIED AND PECULIAR.

**RT. HON. CHARLES ABBOT,
LORD COLCHESTER.**

THIS portrait is a most interesting study. The word literature might be erected over it as an arch, and would be expressive of every feature of his face and head. The word teacher might be applied to him with a significance that is rarely equaled. Any phrenologist looking at such a mouth as his, such a nose, such eyes, such a formed forehead, such a temperament, need not hesitate one moment in pronouncing him a teacher, a writer, a speaker, and especially a man capable of literary excellence. Of course, he could be a man of science also, but he should be related to such sciences as depend largely upon literary talent to appreciate and remember the nomenclature.

We read the title, "Master of Arts;" this man might also have "M. W.," meaning "Master of Words." If he were a botanist, a chemist, a physiologist or an archæologist, subjects so largely dependent on the peculiar terminology, requiring literary capability to appreciate the names and to remember them, he would be at home in such a field. As a preacher, as a teacher, as an editor, writer, lecturer or talker in the social circle or in the Court or Senate, he would be not only at home, but the master of the home.

The form of the mouth, the opulence in the length and pliability of the upper lip, indicate to the observer a tendency to play with the words.

His under lip has the indication of freedom of expression, and also of the loving element, the spirit of cordiality, the desire to communicate, to make conversation, to affiliate with others; and that is a wordy mouth, and one likely to give most remarkable fullness and freedom of enunciation; words rippling from his mouth would seem polished and critically formed, every letter would seem to have its place. Even silent letters would be hardly silent.

The nose is also that of the teacher, the talker, the man who explains; the droop of the septum indicates analysis, criticism, precision, interest in details and particulars. The nose also indicates brilliancy of temperament, clearness of thought, brightness of mind, and pertinency of expression. Then the liquid eye, large, ardent, brilliant, prominent, is the mother of words; the fullness below the eye indicates affluence of expression; not one word would be lacking in polishing his periods and completing his statements. The pushing forward of the eye, as if there were hardly room enough for it under and forward of the brain, indicates accuracy of statement as well as affluence and definiteness of diction.

The large perceptive organs, shown in the prominence and fullness above the eyes, length from the opening of the ear forward to the center of the forehead between the eyebrows, displays length of the anterior lobes of the brain, and the talent to understand things or entities and their

qualities and peculiarities. He would grasp an idea and load it with adjectives, and send it out like a ship with holiday dress. He would state a fact or mention a thing, and then refer to its qualities of color, form,

to land and baronial estates, he would write or speak with an accuracy of statement and an orderly adjustment of words, so that each word, like the stones in an arch, would fit and fill and serve the requisite purpose. If he



FIG. 178. RT. HON. CHARLES ABBOT. LORD COLCHESTER.

magnitude, elegance ; and his Language would enable him to make his thoughts glow with wonderful fullness of expression.

The external angle of the eyebrow seems to be pushed out into squareness and width, showing large Order, making him one of the most systematic of men. If he were devoted to literature, and not merely

were a learned judge on the bench, it would be a charm to listen to a charge of his to a jury ; the fullness and clearness and accuracy of his statements would be marvelous ; and every sentence would have its full sweep and breadth and all the necessary words to make the sentence and the sentiment complete would be employed ; there would be nothing left

for inference; it would all be stated in select phraseology.

Causality is large in this forehead, showing, in the language or composition, a sharp regard to the consistency and logical propriety of the words used. His Comparison is also large, and that organ serves to give definiteness to the comparative degrees of excellence or demerit relative to subjects, and therefore the words would be pruned and trimmed to an accuracy of adaptation.

Then the Mirthfulness is large. He would use language in such a way as to evolve the witty or absurd sentiment involved in his statements, enabling him with such language to touch a topic without wallowing in it, as a swallow stoops in her flight to pick up a water fly from the surface of the lake without wetting her wings.

The faculty of Agreeableness is also large; and it would be a lesson in elegant decorum to listen to a man who could put his thoughts into words as fully, smoothly and delicately as this man could. His praise would be as delicate as the distant odors of flowers. He would flatter without offending; he would praise without having it seem to blame others. The graces of diction and the mellowness of his phraseology would be a charm in cultured circles. He could talk in the presence of Lord Chesterfield, and acquire the reputation of being thoroughly earnest and true, and yet his accuracy would not be offensive, and his censures not rude. What a teacher he would have made of a young ladies' seminary! What a teacher he would have made of elocution or dramatic skill! What a presiding judge, what a president of a deliberative body, what a public debater!

His Ideality was large; hence he had the element which appreciates the niceties of elegance, refinement and beauty. He should have been a poet, or an artist, at least decorative, in his tastes.

His knowledge of character seems

strongly marked, and that organ is located on each side of the center of the forehead, about where the hair begins to cover the head. The distance from the opening of the ear to that point is remarkable, and, although the front of the forehead is broad and the top is elevated on each side of the center, still the distance is such from the opening of the ear that Human Nature must have been large; and, understanding character as he did, and being such a master of words and so fertile in fancy and brilliant in wit and sound in logic, he must have been one of the best orators or conversationists of his time.

If we could go back and examine the form and force of the middle and crown sections of the head we could show the friendly, the loving and the dignifying forces of his character. We find above and behind the top of the ear large Combativeness, which would have made his invective sharp and his words scathing if they were deserved.

His Secretiveness shows fullness of the side head; hence his thought and his statements had guardedness and the lack of abruptness, and a judicious leaning which would have made his discourse smooth and fascinating.

His Cautiousness, at the higher part of the side head, the upper back corner, as we sometimes hear it called, was large. Hence prudence would always preside over his actions and expressions. I can imagine him a lawyer writing contracts of vast importance in a marriage settlement or in the transfer of lands and estates. His Caution would prompt the wisest prudence and his Language and his intellect would find the words and give expression to all that is requisite in such composition. If he were drawing a bill for Parliament the carefulness and fullness of the composition would show the masterful force of accurate language; and the Caution and Secretiveness would be evident at every point where danger was possible.

His head above and a little forward of the opening of the ear is broad enough to give him a clear sense of value in regard to property; and he would have made a fine merchant or a good public financier.

The top head, which is apparently high, is so obscured by the abundance of the hair that a definite statement of each of the organs cannot be expected, but the mass of the top head is large; hence Conscientiousness, Firmness, Self-esteem, Veneration, Benevolence, Spirituality, all appear to be amply developed.

The temperament is mainly mental, and also fairly well represented through the indications of the vital and the motive temperaments. If that man had been born without hereditary title and estate, and had been obliged to begin at the bottom of the ladder of life, and work his way through difficulties to the top, he would have been a magnificent specimen of culture, talent and success.

This picture was published in the *European Magazine* of London on the first of October, 1817. His equal or superior has not often been found since. Talent does not all belong to the ancients, nor yet to the last half of the nineteenth century. This head and face would stand conspicuous in any age or nation.

A friend asks me: "Is not the title under which you are writing, 'How to Study Strangers,' a strange title for a book?" My reply is, Therein consists its significance. Partial friends can write the excellent traits, but that is not biography. Do you not know that strangers are the only ones whom necessity often requires people to know thoroughly, and at once, and that nearly the entire work of phrenologists is with strangers? Men and women come for examination as strangers. Many hide their name by borrowing some threadbare one; they disguise their identity or their profession by borrowed clothing, and often by raw, ungrammatical conversation, or by silence and bash-

ful stupidity, so that the phrenologist has to meet strangers even under many devices to put him on his mettle. Six clergymen on an innocent lark came disguised by dress and manners borrowed from the bar room or the Sunday fishing banks, and tested the stranger; but they introduced themselves at the close, and it was manifest that their object was to get an analysis of one of their number whose conduct had recently caused a scandal, a notorious trial and an abandonment of the "cloth."

In finding significant and marked varieties of heads and faces to illustrate such a work as this there is considerable difficulty. The portrait of Lord Abbot which we present is the first of many that are to follow which were purchased from a vendor of old engravings, taken out of old magazines, and reaching back to the sixteenth century. These vendors come in possession of tons of magazines and strip out the frontispieces for sale, and send the old stock to the paper mill. One such person recently came with perhaps 500 portraits, and I made a selection which are interesting as human pictures, some with names and ancient dates running back of memory and available cyclopedias.

I completed my analysis of Lord Abbot (and some hereditary lords are execrable), not caring for or expecting a biography, when a clerical friend who saw the picture had the curiosity to consult his "Encyclopedia Britannica," and copied for me the following:

BIOGRAPHICAL.

Charles Abbot, Lord Colchester, was born at Abingdon, England, in 1757; was the son of Dr. John Abbot, rector of All Saints, Colchester, and, by his mother's second marriage, half-brother of the famous Jeremy Bentham. From Westminster School Charles Abbot passed to Christ Church College, Oxford, where he gained the Chancellor's medal for

Latin verse and the Vinerian Scholarship. In 1795, after having practised twelve years as a barrister and published a treatise proposing the incorporation of the judicial system of Wales with that of England, he was appointed to the office previously held by his brother, of clerk of the rules in the King's Bench, and in June of the same year he was elected member of Parliament for Helston, through the influence of the Duke of Leeds. In 1796 Abbot commenced his career as a reformer in Parliament by obtaining the appointment of two committees—the one to report on the arrangements which then existed as to temporary laws about to expire, the other to devise methods for the better publication of new statutes. To the latter committee and a second committee, which he proposed some years later, it is owing that copies of new statutes were thenceforth sent to all magistrates and municipal bodies. To Abbot's efforts were also due the establishment of the Royal Record Commission, the reform of the system which allowed the public money to lie for some time at long interest in the hands of the public accountants, and, most important of all, the act for taking the first census, that of 1801. On the formation of the Addington ministry, in March, 1801, Abbot became Chief Secretary and Privy Seal for Ireland; and in February of the following year he was chosen Speaker of the House of Commons, a position which he held with universal satisfaction for fifteen years, till 1817, when an attack of erysipelas compelled him to retire. In response to an address to the Commons he was raised to the peerage as Baron Colchester, with a pension of £4,000, of which £3,000 was to be continued to his heirs. On the 8th of May, 1829, he died of erysipelas, aged 72.

To rise without wealth or title, to preside over Parliament for fifteen years, during such a period as covered the career of Napoleon and the

second war with the United States, and then be raised as a reformer to the peerage, justify all that may be said of his talent or worth.

JAMES O. ANDREW, D. D.

LATE BISHOP OF THE M. E. CHURCH.

This organization is very interesting to the student of constitution and character. He is a specimen of the strongly marked motive temperament. The features are large, the face long, the head running up to a ridge in the center, representing the ruling elements of character, and the head, like the face, is comparatively narrow. There is an abundant muscular development, but not much adipose tissue, which constitutes, when prevalent, plumpness, smoothness, beauty. The layers of muscle seem to hang over the framework of this face, and we suppose there was not an extra pound of flesh on his form.

He has a very frank, honest, sincere look. There is not in that face any expression of enthusiasm or tendency to magnify a straightforward, honest truth. He thinks and talks in straight lines, believes what he says, utters it fairly and squarely, and calls it finished. He is the soul of frankness, does not "cloak or dissemble his thoughts before the face of Almighty God," or in the presence of his fellowmen. And that sincerity and openness is depicted in every feature. He does not try to fix his face so that it will look placable and genial and mellow or persuasive. His eyes look straight at you without wavering or trying to be soft. His strong, plump lips have a firmness and absoluteness which do not carry an apology for what he has said or what he intends to say.

His large Individuality, shown by fullness above the root of the nose, leads him to speak to the point, and his thoughts are convergent; he focalizes what he thinks, and makes it specific; and he is a wonderful dealer in facts, and inclines to make

his statements historical. He speaks truth a thousand years old as if he had been there and seen it and knows all about it. If he believes it he nails it and does not send an apology to lubricate its acceptance. If he

he. The organ of this faculty is located at the top of the forehead where it begins to recede into the moral region. The reader will notice a high ridge along the center of the top head, beginning with Benevolence,

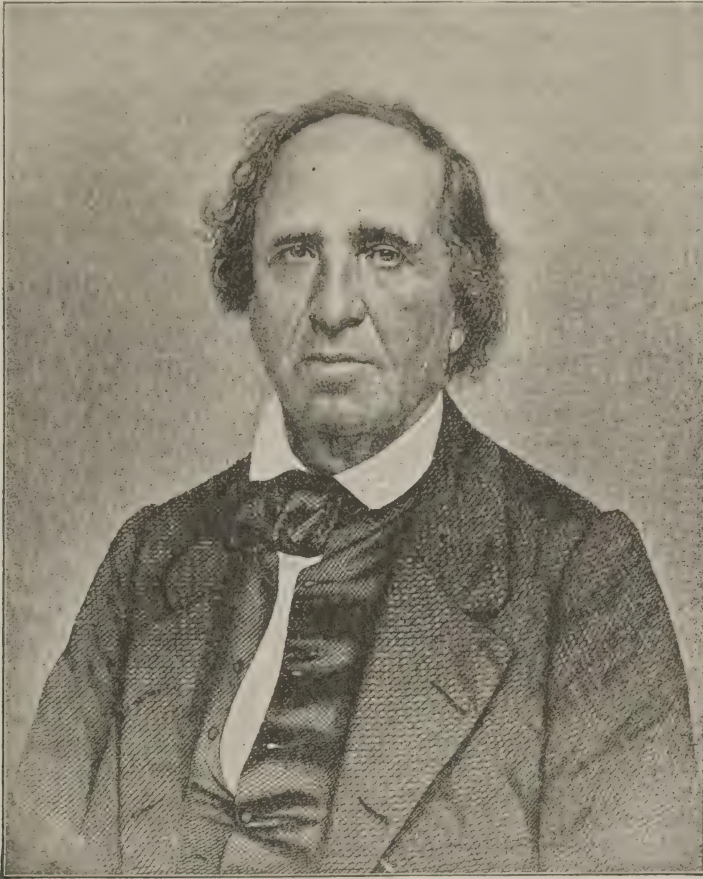


FIG. 179. JAMES O. ANDREW,
LATE BISHOP OF M. E. CHURCH, SOUTH.

disbelieves he does not try to soften it.

His large Comparison makes him analogical, critical. His knowledge of character is wonderful. He reads men like a book, and, though he has not a particle of cunning or undercurrent in his tendency, his mind is like a cleaver which opens out the subject in an unreserved way. Few men understand strangers as well as

which is largely developed and a strong factor in his character. It helps to make his face look gentle, kindly, patient; and though he has plenty of authority in his nature his Benevolence seems to give it a softness and make it acceptable.

His Veneration is uncommonly strong, where the top of the head is lost among the light covering of hair on the center of the top head, that

part of the head which was the crowning quality of his moral life. He has a look on his face as if he had settled several questions as to God and man and destiny. In that top head and in that face we can read the words of the Psalmist, "My heart is fixed, oh God; my heart is fixed." "In God have I put my trust; I will not be afraid what man can do unto me." The large Firmness, which lies back of Veneration and supplements it, gives the impression of fixedness, of trust, and we think his Self-esteem is well developed, which gives him a consciousness that his judgment in the matter has been properly settled.

In his face there is a motherly expression, as if he had derived it from his mother; and yet the general frame of his face and head is masculine. We judge the back of the head was very full, showing large Parental love and strong Conjugal love.

The flatness of the side head would indicate that he had but little Secretiveness, not an extra amount of Cautiousness nor very large Acquisitiveness. He could preach a good sermon over an empty pocket; he had excellent common sense, but not a great deal of secular wisdom.

He had but little Imagination and not much Imitation. His manners and methods were his own, and he did not take on the ways and usages of others readily, and that which he believed to be true and desirable he would hold in uncompromising tenacity. He had much more kindness than complaisance or Agreeableness. He had more Veneration, Firmness and Self-Esteem than of Conscientiousness or Spirituality. People knew he was sincere, true and kindly, but his frankness was sometimes alarming. He would preach in an uncompromising way the truth as he understood it. It might have been kindly, but it was straight and unflinching; and there never was much trouble in knowing how much he meant and just what he meant. There was no false pretense or pretense of any kind.

His utterances were plain, direct, unvarnished; and wherever he moved he made his mark.

BIOGRAPHICAL.

The foregoing estimate of Bishop Andrew having been dictated and completed, I went to the cyclopedia to learn of his birth and the outline of his career, and was pleased to find that his determination and strength of purpose had been verified in the great controversy which divided the Methodist Church of America.

James Osgood Andrew, D.D., an American clergyman, one of the Bishops of the M. E. Church, South, was born in Georgia, May 3, 1794, and died in Mobile, Alabama, March 2, 1871. At the age of eighteen he was licensed to preach, and in December, 1812, was received into the South Carolina Conference, and was elected Bishop in 1832. His second wife being the owner of slaves, the Northern delegates to the General Conference in 1844 judged "that this would greatly embarrass the exercise of the office as an itinerant General Superintendent, if not in some places entirely prevent it." Accordingly the majority of the body resolved "that it is the sense of the General Conference that he should desist from the exercise of this office so long as this impediment remains." The Southern delegates entered their protest. The result was an amicable division of the M. E. Church into two independent jurisdictions. The Southern division, under the name of the M. E. Church, South, held a General Conference at Petersburg, Va., in 1846, and Bishop Soule and Bishop Andrew gave their adherence to the Church, South.

Bishop Andrew continued to exercise his Episcopal functions till 1868, when he retired from active duty on account of age and died 1871 aged 77. His volumes of "Miscellanies" and on "Family Government" have been widely circulated.

CHAPTER XXII.

TALENT VARIED AND PECULIAR.

FELICIA HEMANS.

THE study of the portrait of this queen of sacred poetry, this renowned and beloved woman, is exceedingly interesting to the student of human nature; and the fact that it is a perfect profile view is the rarest fact in reference to it. Few artists ever make a perfect profile; there are few sitters who are willing to be portrayed that way; there are fewer heads that would successfully bear the ordeal.

The pose of the head is admirable, and ought to be, because it is so well balanced phrenologically and physiologically, that there could be no pose of the head, that is natural and admirable, that such a head would not assume. It is distinctly a masculine face. She was doubtless in physiology and mentality as good a copy of a good father as could be found.

What a firm and masterful chin, and how the face from the chin runs squarely back to the angle of the jaw, showing resoluteness, strength of character, determination, endurance and constitutional vigor. The lips how firm, how prominent and strong, evincing devotedness and ardor of love! Observe the prominence of the cheek bone, the reach of it from the opening of the ear forward, indicating vitality, breathing power and courage. Look at the Roman nose, shapely, dignified, elegant, large, commanding. Look at the prominence and the delicacy of its point and the classic elegance of the nostril, and

the easy sweep of the wing of the nose! The front view of that face must have been enchanting as well as commanding. The brilliancy of the eye, what a definiteness it expresses, and the fullness below the eye indicative of easy grace and affluence of speech. What a beautiful arch to the eyebrow, showing quick and clear perception, and especially a fine taste for colors! The organs in the central line of the forehead, Individuality, Eventuality and Comparison are very prominent, making her facts take a definite form of expression, giving the memory of events and facts, and ability to recall her knowledge at wish and will.

Comparison is large enough to render her mind analytical and analogical. Every stanza of her poetry will illustrate these mental traits, sharpness of definition, clearness of expression, and smoothness of diction. Her knowledge of human character is shown by the length from the ear to the location of the organ in the middle of the upper line of the forehead. Hence she read character well, and had a keen perception of its peculiarities; and with her power of language, she was able to portray nice shades of character in a manner to make them seem natural and effective.

Benevolence was large; the front part of the top head was well expanded and elevated. Veneration and Spirituality were large and distinctly evinced in the elevated and reverential spirit of her poetry.

Firmness was large; that organ being located in the central part of the back of the top head. If we draw a line vertically from the back of the ear, it will cross the organ. Steadfastness and strength of character

face, corresponding with her character, and every feature of the whole make-up evinces dignity and a sense of her own worth.

Approbativeness was large. It is located on either side of Self-esteem,



FIG. 180. FELICIA HEMANS.

and purpose are indicated in the pose of the head, in the features of the face, as well as in the large development of Firmness.

Self-esteem was large; that organ comes in just at the upper part of the coiled braid. The crown of the head was high, and that is a very dignified

giving fullness to the upper backward and outer portions of the crown. The head was long from the opening of the ear backward, which covers Inhabitiveness, Continuity and Parental Love. Friendship was prominent; hence her affections were cordial.

Combativeness was well indicated; hence, she was vigorous and brave. Amativeness was large; hence, her love was strong and influential. The love of life, Vitativeness, seems to have been large, hence her poetry breathes the sentiment of immortality and makes it seem real. Vitativeness leads us to desire to live as long as we can in the life that now is, and tends to span the dark river with the arch of promise for the life everlasting. If we look at the expression of strength and confidence in that face, if we look at the hopeful expression of the eye, it reminds us of Job's immortal expression, "I know that my redeemer liveth, whom I shall see for myself and not another."

The harmony of temperament belonging to this character was such as to give wholesome development to every hope and sentiment and social feeling, and to give to her work an easy grace and vigor inviting confidence and fostering a hearty acceptance. The following stanzas show the poetical, the spiritual and mental type of our subject, and illustrate the interior, the intense and trustful working of her powers.

Answer me, burning stars of night!
Where is the spirit gone,
That, past the reach of human sight,
E'en as a breeze hath flown?

O, many-toned and chainless wind,
Thou art a wanderer free.
Tell me, if thou its place can find,
Far over mount and sea?

Ye clouds, that gorgeously repose
Around the setting sun,
Answer! Have ye a home for those
Whose earthly race is run?

O, speak, thou voice of God within!
Thou of the deep, low tone!
Answer me, through life's restless din,
Where is the spirit flown?

And the voice answers "Be thou still;
Enough to know is given.
Clouds, winds and stars their part fulfill;
Thine is to trust in Heaven."

HEMANS.

ELIPHALET NOTT, D.D., LL.D.,

PRESIDENT OF UNION COLLEGE FOR
SIXTY-TWO YEARS.

This is one of the most manly heads and faces which has figured in American history; and though an eminent scholar and thinker, he was all his life in touch with the times. He was an inventor. He gave much attention to physical science, especially the laws of heat, and obtained thirty patents for valuable inventions, among the most notable of which was the first stove for burning anthracite coal which bore his name and was for many years extensively used.

The study of this portrait is exceedingly interesting. The head is high, long, and fairly broad, especially in the frontal section. He was one of the ablest thinkers of his time, and that is indicated by the massiveness of the upper section of the forehead. He was a fine reasoner; was a great critic; understood mind and character, and had wonderful imitation. The front part of the top head runs out from the center, and without having a curve downward, as usual, runs out level, showing the elevation of the outward section of the top of the forehead and indicating very large Imitation. And he was one of the best elocutionists of his time; he taught some men who became the ablest orators of his day. He was a magnificent orator himself; his own thoughts were piled up in stately style, and so effectively uttered as to make him the model speaker of his age.

The organ of Mirthfulness seems to be large. The outer corner of the forehead is prominent; and he was remarkable for his wit. His Constructiveness is shown in the width of the region of the temples. Ideality and Constructiveness, Wit, Imitation and Causality grouped around that section of the front part of the head exhibited by the temples and by the front and top part of the forehead.

The organs in the lower part of the forehead were large. He had very copious language, and the fullness under the eye is an indication that

wonder of the time, and reached, in 1866, the great age of ninety-three years.

Students in Phrenology and physi-

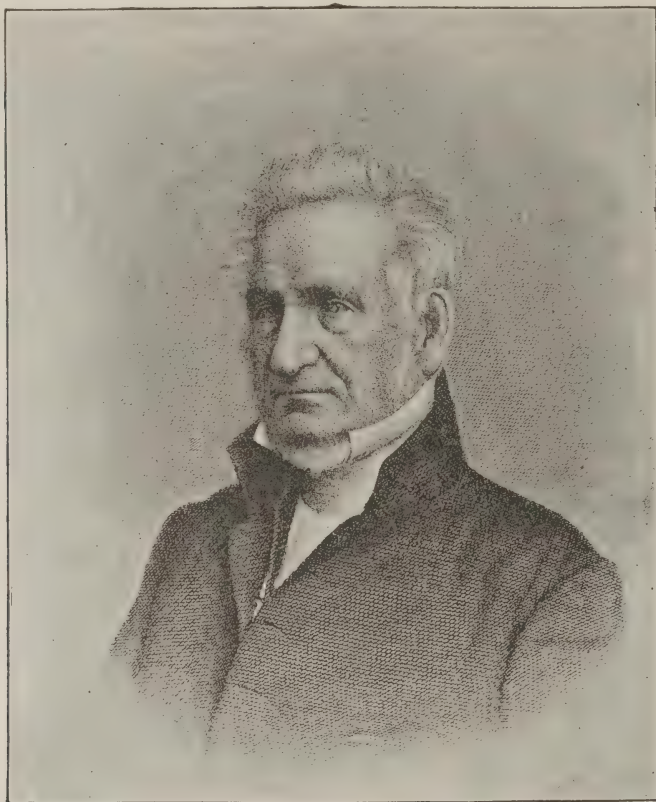


FIG. 181. ELIPHALET NOTT,
PRESIDENT OF UNION COLLEGE.

the eye was pressed forward and downward by the brain, thus indicating strong language.

In the region of the moral organs, Conscientiousness looms up. He was a man of equity, and he so carried himself with the students of his college that they had the highest reverence for and confidence in him. His word was law, and yet he ruled gently. He was the father of the Institution as well as of the Church over which he presided.

He had a capital constitution, and he enjoyed health, which was the

ology will see that the different sections of the face are amply balanced. We suppose this picture was made of him when he was over eighty years of age. And it was made from a photograph. And he must have been nearly seventy years of age when photography was introduced into this country. See the handsome chin, how it is projected forward, how it is depressed, what a long face! That large, healthy chin, is a physiological indication of a sound, healthy action of the heart. Physiognomically considered, it

means ardor, and strength of social affection.

The length of the nose is evidence of thoughtfulness and criticism. The fullness of the face outward from the nose indicates lung power, and the fullness of the face outward from the mouth evinces a healthy state of the stomach. And where these conditions are all favorable, men look

the admired and masterful president of a college from the age of thirty-one, to that of ninety-three years.

MATTHEW VASSAR,

FOUNDER OF VASSAR COLLEGE.

This face is a strong and a good one. That long, large nose, that broad, strong cheek bone; that full and



FIG. 182. MATTHEW VASSAR,
FOUNDER OF VASSAR COLLEGE.

young when they become old; instead of withering up and having weakness of circulation and weakness of digestion and shortness of breath, they hold these functions till they are well advanced in life.

Dr. Nott belonged to the class of eminent scholars and thinkers who were born in the last half of the 18th century. So sound was his health and so balanced were his social, moral and intellectual developments, that he was the life of the circle in which he moved, and not only the life but the light of it. He was the witty man of his age as well as the eloquent man and as sound a thinker as this country has raised. He was

prominent chin, indicating steadfastness, dignity, integrity and vitality; that rugged brow, indicating practical sense, and the honesty of the expression of the face, strike the observer at a glance. He had a great deal of solid common sense. He had eminent business ability, and could have made a success in anything which honorable men follow. He would have made a very fine physician. That face and forehead indicate the ability to acquire and use the knowledge which belong to the medical profession. He had strong constructiveness and would have made a good engineer. His head was wide; hence he had force of character, courage,

thoroughness and executiveness, a desire for gain and the ability to accumulate property. Not having been favored with very much scholastic culture in his youth, he had a feeling similar to that of Peter Cooper and several other eminent business men, to wit, a desire to establish a school for the culture of others. Ezra Cornell has given his name to an institution; Mr. Seney gave his name to a hospital; Peter Cooper to an Institute which will carry his name gratefully down the ages; Cornelius Vanderbilt gave his name to a University in Tennessee; and Vassar, inheriting tact and talent liberally from his mother, had an inspiration in the direction of female education, and has secured for himself a reputation which will never cease to be fragrant.

In studying this head, we perhaps see in him traits that he did not so openly manifest to the world. If the reader will draw a line vertically on the picture from the outer part of the pupil of the eye up to where it touches the hair, he will see that there is a

handsome rounding up of that section of the head. It is shown distinctly on both sides, but on one side, as the picture is taken, a little more than on the other. The hair is put back far enough to show it. That represents the region of Spirituality and Hope; and Vassar College was born of those two faculties. The social, of course, would have its influence; he was naturally a lover, and would think of woman's weal and sphere, and be impressed to do something in that direction. There was less logic than sympathy and spirituality and affection in the direction of his gift; that has a mechanical phase; it has a financial phase and a beneficent phase and a very executive one; and the form of the head sustains these suggestions.

Born April 29, 1792—in 1861 gave 200 acres of land near Poughkeepsie, N. Y., and \$408,000 in cash to build a college for the education of women at moderate cost. At his death in 1868 he gave \$150,000 in the way of endowments.

CHAPTER XXIII.

PECULIAR ORGANIZATIONS.

AMBROSE DUDLEY,

EARL OF WARWICK, BORN 1590.

THIS is a peculiar head and face. There is an enormous development of the knowing faculties located across the lower half of the forehead. The Perceptive organs are all very large. The temperament is favorable to intellectuality and mental vigor. The peculiarity of this head is that it is so very high. The organs in the top head, especially Veneration, Firmness and Self-esteem, are enormous. There is such a thing as hereditary dignity and stability and hereditary reverence for greatness and titles, and what the world styles elevation of character.

One can readily imagine the sense of authority; the love of power; the feeling that he stands head and shoulders over mankind generally, and, although he had a mild countenance, he was doubtless very rigid in his ideas of truth, duty, and especially the duty that subordinated people owe to government and to authority. Such a head as that would readily recognize the divine right of kings and the spirit of governmental authority as held by landed lords. That high top-head evinces hundreds of years of successful distinction and authority. If such a man were inspired by high and holy motives, his intelligence and his sense of law and subordination by those subjected to

law, would seem sublime. Then his intellect ought to place him high in the rank of intelligence, scholarship, knowledge and practical wisdom. The faculty which reads character, the organ of Human Nature, is enormously developed in that head, and so is Imitation. That would be the

was of constructive talent, Ideality and prudence. The head seems to run up in the central region and the sides are comparatively flattened.

HUGH LAWSON WHITE.

This is a remarkable specimen of the mental temperament and is



FIG. 183. AMBROSE DUDLEY,
EARL OF WARWICK. BORN 1590.

kind of a head to exercise governmental and diplomatic power; it would also excel in science and in literature. He seems not to have very large Caution, but more force of character than prudence and guardedness; and the center of the top-head is so enormously high that he must have had great religious enthusiasm and have inclined to promote religious sentiments by legal control. He was doubtless exceedingly conservative if not tyrannical. His large Language gave him the power of utterance; the fullness of the eye is very manifest.

There was more Spirituality, Veneration and Benevolence than there

a high order of development. There is fineness of quality, sensitiveness and susceptibility, and there is a wiry endurance and toughness connected with such a constitution. He was remarkable for his scholarship and for his judicial talent. He was a judge in a Southern State about 1850, was a United States Senator, and was a strong candidate for the Presidency; was considered a formidable rival in the field during the latter part of the career of Henry Clay. The face is long, and the features light and delicate. The eye was sharp and clear, and the superior faculties of reason, dignity, ambition, thoroughness, steadfastness,

morality and imagination were remarkable. As a lawyer and a judge he was a critic and clear-cut; as a thinker he was broad and sound, and

very large Firmness and Self-esteem. Such a head indicates scholarship; desire for knowledge; ability to gather information and make himself

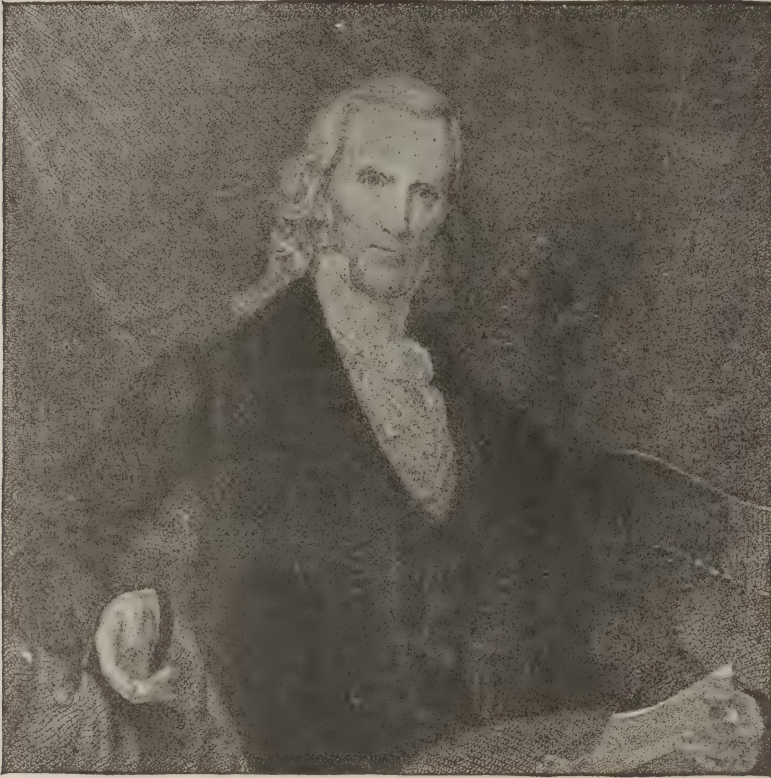


FIG. 184. JUDGE HUGH L. WHITE.

as a man of mental caliber rarely equaled.

Like John C. Calhoun, his body was slight, though wiry, and he seems not to have been very liberally nourished. His digestive power seems to be poor; the hollowness of the cheek outward from the mouth indicates it, but he was a kind of intellectual lightning-rod in his time, masterful in spirit, and high-toned in his sense of duty and honor.

He had the organ of Hope largely indicated. He had large caution and

master of his surroundings, and a natural leader among men.

Such a face and head with education and opportunity always takes rank among men of a commanding spirit, and the world is not slow to recognize the right of such men to lead and to rule.

FRANCIS EGERTON,

DUKE OF BRIDGEWATER.

This is a head, face and body constituting a remarkable contrast with

the two former portraits, Figs. 183 and 184. The date of the picture is 1788. His head and face have something of the outline of King George the Third, and they were contempo-

of the body and the largeness of the chest and the abdomen evince a noble lord who lived high in his day. His large Roman nose would indicate a considerable degree of the Motive

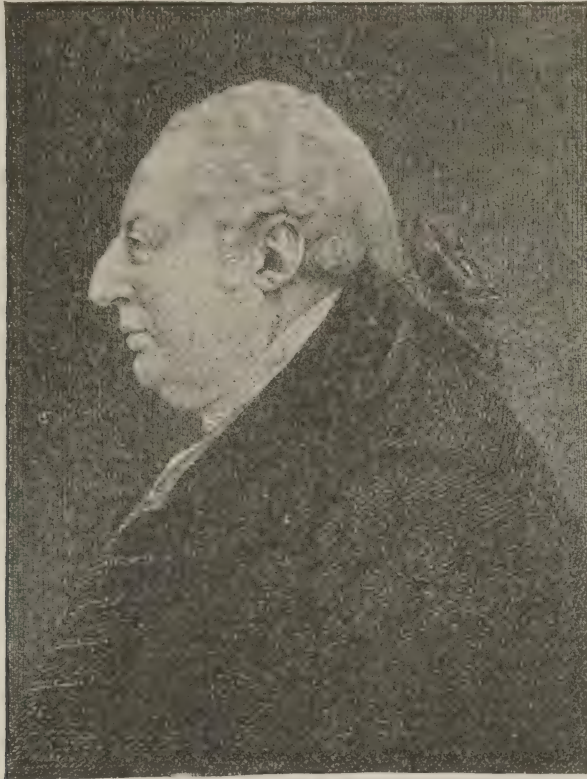


FIG. 185. FRANCIS EGERTON,
DUKE OF BRIDGEWATER.

aneous, though this is a stronger face, and we think a stronger head, than that of George the Third. This is an interesting physiology and physiognomy. There is a stout, deep-chested body; a very high development of the Vital temperament with a considerable degree of the Lymphatic. He was probably a very large, heavy man. The neck was large; the fullness under the broad, fleshy cheek shows bodily health and vitality, and the rotundity

temperament and a desire to exercise power. The fullness of the eye, and especially the fullness beneath the eye, represents the power of language and the ability to utter his thoughts freely and fully, and, with his ample development of the perceptive organs, he would be full of facts and fond of relating stories. His reasoning intellect is not very largely represented; the upper part of his forehead tapers off and retreats. The mouth and chin and the form of the body indicate the

voluptuary, and the breadth and fullness of the base of the brain show that he was of the "earth earthy" and that his thoughts were not as exalted, as clear-cut, intense and elevated as they should have been. The back of the head indicates strong social and animal power. Such an organization lives well if it can afford to, and gathers around him if he do not inherit wealth as a source of physical comfort and happiness. He would enjoy the convivial table. He was the type represented by the song which used to be sung in England, in reference to Napoleon's effort to conquer England. It was a kind of bantering challenge against Napoleon, who wanted to gobble up the "snug little island," and the refrain

of the song, as I remember it from my early boyhood, when I heard it sung by Englishmen in America, was like this :

"While England yields pork, bee
and beer,
John Bull will keep *his* hand on't."

We think the pork, beef and beer would come natural to this man, and if there was enough of it, it would be the acme of the present hour, the joy of his daily life. And still, he might have been a scholar if he had been willing to study. He had perception and language; he could have been a good linguist and a versatile writer, and with his sociability and marvelous memory a masterful storyteller.

CHAPTER XXIV.

GREAT HISTORIC CHARACTERS.

JONATHAN TRUMBULL,

GOVERNOR OF CONNECTICUT.

IN the religious world deceased saints are not canonized until a hundred years have elapsed since they left their earthly sphere. In the patriotic world it is perhaps appropriate and quite natural, in looking at the great characters that have figured in national history, to look back for a century and view the lives and doings of eminent patriots, when nothing but the masterful phases of their character, which are imperishable, remain to be considered. The little, private enmities and selfish rivalries which give friction while strong men are struggling for place, power and opportunity, die out and are forgotten as the generations of men succeed and see only the incandescent characteristics which, like the pure light of the lamp in the distant lighthouse, have distinguished their predecessors.

So, in our day, we look back to

the Revolution; we study its heroes and statesmen with reverence and admiration, and learn their acts of self-sacrifice and lessons of wisdom and patriotic devotion to the public good.

We present here one of the best historical characters and one of the best friends of Washington, in the portrait of Jonathan Trumbull, called by Washington, "Brother Jonathan."

In this portrait the physiologist observes a harmonious constitution. From head to foot he was not only well organized and well proportioned, but there was a fineness of quality that attracts attention, and a handsome face which well befits so fine a physical form. The Phrenologist sees in such a head and face an amplitude of intellectual and moral power. That large forehead shows sharpness of perception and clearness of observation. It evinces also an excellent memory and power to retain the knowledge which the per-

ceptives acquire. In the upper part of the forehead we observe the very strong Causality and Comparison, higher moral faculties. The side-head is not broad and therefore does not indicate selfish propensity, but per-



FIG. 186. JONATHAN TRUMBULL.

which rendered him a philosophical man of comprehensive judgment and solid understanding. In the top-head there was elevation, indicating determination, integrity and the

mits the exercise of unselfish patriotic public spirit. We notice also large Order, and the style of the dress in which the portrait was painted shows method, taste and refinement; and

the refinement of the features, the brightness of the eye and the expansiveness of the forehead are indications that Ideality and artistic taste are prominently shown. Such a face and head and such a bodily form would command respect in any country or in any age. He looks to be a peer of the best, and therefore capable of being a patron and protector of the ignorant and the poor. It was to men such as he, with their wisdom, courage and patriotic devotion, that the United States owe the achievement of American liberty. The wisdom, the self-denial, the sagacity and the moral power which animated the leaders of the Revolution are worthy of regret and remembrance, and their characters will adorn the pages of history as long as virtue, talent and patriotism are respected among men.

He belonged to the class in which the Adamses, the Hancocks, the Pinckneys, the Henrys, the Lawrences, the Masons, the Rutledges, the Morrisises, the Hamiltons and the Washingtons belonged, who conceived and achieved the revolution and gave us the Declaration of Independence and the Constitution of the United States.

Jonathan Trumbull was born at Lebanon, Connecticut, October 12th, 1710, and died there August 17th, 1785. He was graduated at Harvard College in the year 1727; he studied theology and was licensed to preach, but in 1731 he took the place of an elder brother, who was lost at sea, in his father's mercantile business. In 1738 he was elected to the General Assembly of Connecticut, of which, in 1739, he became speaker. He became Judge of the County Court, Assistant Judge of the Superior Court, and from 1766 to 1769 he was Chief Judge of the Superior Court. In 1767 and 1768 he was elected Deputy Governor and in 1769 Governor of the Colony, which office he held until 1783, when he resigned. He was one of the first to espouse the popular

cause in the troubles preceding the Revolution, and in 1765 refused to take the oath required of all officials to support the provisions of the stamp act; and he coöperated with vigor in securing the independence of the colonies. Washington relied on him, says Sparks, "as one of his main pillars of support," and was accustomed to consult him in emergencies. The personification humorously applied to the United States is said to have had its origin in a phrase sometimes used by Washington: "Let us hear what brother Jonathan says."

Washington kept up an intimate correspondence with Governor Trumbull throughout the Revolution, and to his sharp sagacity, his courage, prudence and wisdom in a day which tried men's souls, may be attributed much of the success which Washington and his army secured in those gloomy times; and when we think of the achievements which the Americans attained against so powerful a nation as England, having but a handful of inhabitants and very little of wealth, it is an astonishment that independence was secured. Americans should be thankful to the quarrelsome spirit of the European nations which gave England something to do nearer home, otherwise we would to-day have been a colony, and largely crippled in our enterprise. England has the best colonies in the world, but none of her colonies have the elbow-room and the opportunity for the achievements which have been wrought out under the American flag. Thus left free to frame a government suited to their needs, the fathers of the revolution could drop burdensome usages and make broad and straight roads to success.

ALBERT GALLATIN.

This interesting figure; this masterful thinker; this natural financier and comprehensive business manager; this patriot of America and one of its best servants during a long and useful life,

was a native of Geneva, Switzerland, where he was born the 29th of January, 1761, and died in Astoria, N. Y., Aug. 12, 1849. His father was a counselor of state and intimately connected with public affairs in his country. The son, Albert, graduated at the University of Geneva, 1779, and the next year embarked for America, and from that time on became one of the foremost men in the land. He met General Washington in 1784, who became his friend and patron. In that year he had purchased a large tract of land in Virginia, for the purpose of forming a settlement, but the hostilities of the Indians led him to refrain from it. While surveying these lands he first met Washington, who also owned large estates in that region.

As Washington was seated in his land agent's log cabin, surrounded by a number of squatters and hunters, whom he was examining with a view to ascertain the best route across the Alleghanies, Gallatin stood in the crowd looking on for some time, while Washington put his questions with slowness and deliberation, and carefully noted down the answers. It was soon evident to the quick-minded Swiss that there was but one practicable pass. He grew impatient at Washington's slowness in coming to a conclusion, and suddenly cried out: "Oh, it's plain enough that (naming the place) is the most practicable." The bystanders stared with astonishment, and Washington, laying down his pen, looked at him in evident displeasure, but did not speak. Presently he resumed his pen, put a few more questions, then suddenly threw down his pen, and, turning to Gallatin, said: "You are right, sir." After Gallatin went out Washington inquired about him, made his acquaintance, and urged him to become his land agent. Gallatin declined the offer, and by the advice of Patrick Henry he purchased land on the banks of the Monongahela, in Fayette County, Pa., settled there, became naturalized, and devoted himself to agricultural pursuits.

In 1789 he was a member of the convention to revise the constitution of the State of Pennsylvania, and in the two succeeding years was a member of the legislature. In 1793 the legislature elected him United States Senator, but there was question as to his eligibility, not having been a citizen during nine years required by the constitution, as he did not take the oath of allegiance until 1785. He was, however, elected to Congress, and continued a member of that body from 1795 until 1801.

He directed his attention particularly to financial questions, made important speeches on "Foreign Inter-course" and on the "Navy Establishment." On May 15, 1801, he was appointed by President Jefferson, Secretary of the Treasury, which office he held under him and under Madison until 1813. He was eminently successful in his management of the Treasury Department, and soon attained a reputation as one of the first financiers of the age. He systematized the mode of disposing of the public lands, and was a zealous advocate of internal improvements. In 1809 President Madison offered him the State Department, which he declined. In 1813 President Madison nominated as ministers to negotiate a treaty of peace with England, Gallatin, James A. Bayard and John Quincy Adams, and his name is attached to the treaty of peace. In 1826 he was appointed by President Adams Envoy Extraordinary to Great Britain, and in 1827 he took up his residence in the city of New York.

In 1830 he was chosen president of the council of the University of New York, and from 1831 to 1839 he was president of the National Bank of the City of New York, and on resigning that office he was succeeded by his son, James Gallatin.

In 1846, during the Oregon difficulties, he published letters on the "Oregon Question," distinguished by impartiality, moderation and power of reasoning. He was strongly

opposed to war, and during the war with Mexico he wrote a pamphlet of which 150,000 copies were printed,

this adopted citizen. We have given this biographical sketch so that the readers can follow the description



FIG. 187. ALBERT GALLATIN.

and which had a marked influence on public opinion.

Few men have done more for the prosperity of the United States than

and estimate which we make of his character and talents, which are so vividly presented in his face and head.

In the first place he had a compact constitution; vigor, fiber, endurance and power belonged to him. He had a definite development of the physiognomy; his features were marked and sharp, indicating intelligence and especially financial ability. He had a fine development of Language; the eye is prominent, well-opened and well-protruded. He was able to present his thoughts in a clear, convincing manner, and that is one essential element of the leader. Moses was slow of speech, but he had in his mind the logical elements of the leader, although he needed language, and Aaron, his brother, was a good speaker. He was attached to the work of Moses and communicated his thoughts successfully to the people. Gallatin has the language of Aaron and the law-giving power of Moses; they are combined in one and the same person. The reader will observe the very great prominence of the upper part of the forehead; there is massiveness of the reasoning faculties, and the sharpness of the features and the definiteness of the expression of the face indicate that his mind was exceedingly active. That his constitution was well sustained, carrying him to the remarkable age of eighty-eight years, would show also that his brain, by such a body, was amply nourished and vivified, hence his early talent, sagacity and power to win place, position and command respect of such men as Washington and his confrères, Madison and the rest, are all evidences that his phrenology was not only amply and excellently, but also admirably sustained by a good physiology.

The reader will notice how broad the head is in the region of the temples; how wide and swollen it is just forward of where the hair commences on the region of the temples. In that wide development of front side head large Constructiveness is preëminent and also large Acquisitiveness, which gives a sense of property

and renders a man an adept in financial conditions. He had large Calculation and Order; hence his tendency to systematize and organize financial affairs; and having been for many years president of a bank, which position he held until quite advanced in age, resigning it to his son, shows that his power lay in organization, in finance and in general management.

Then the moral developments are good; his head is high; Conscientiousness and Hope were large; Veneration was well developed, and Ideality, Caution and Mirthfulness were all amply developed. In fact, Albert Gallatin was a great character. That he made such a favorable impression in a new country upon its ablest men, and sustained himself through all the struggles and clashes of opinion and talent, and that he had to do with the formation and reformation of the United States government and its financial affairs, are evidences that he had a great deal of the right material in him and used it to excellent advantage; and, as an evidence of his morality and righteousness, in splendid contrast to some men of our present time, it may be mentioned as a fact in his biography that in 1815 he was appointed Minister to France, where he remained until 1823. During this period he was twice deputed on special missions of importance—to the Netherlands in 1817 and to England in 1818. While in this office he rendered some essential service to Mr. Alexander Baring in the negotiation of a loan for the French government. This, of course, was private service, and Mr. Baring in return pressed him to take a part of the loan, offering him such advantages in it that, without advancing any funds, he could have realized a fortune. "I thank you," was Gallatin's reply; "I will not accept your obliging offer, because a man who has had the direction of the finances of his country as long as I have should not die rich."

CHAPTER XXV.

FRANKNESS AND SECRETIVENESS CONTRASTED.

ANDREW JACKSON—MARTIN VAN BUREN.

NO public character has been more prominent, more open or more aggressive than that of Andrew Jackson, and no stronger contrast to the prominent characteristics of Jackson can be found than in his successor as President of the United States, Martin Van Buren. The contrast in the portraits is as marked in those respects as can be brought together. Jackson was a tall man, over six feet in height, slim, wiry, bony, angular and lank. His face was long and narrow; his features prominent, and his head was narrow and high. His complexion was ruddy, his eye blue and his hair red. Jackson had no conservatism; no tendency to balance and equalize contradictory conditions; he was no compromiser. He was not smooth, but was rugged, rough and dominating in his methods.

Martin Van Buren was short, plump and delicate, politic, gentle, smooth, pliable, polite, non-committal, evasive, and was called slippery and double-faced by those who lacked Secretiveness, Approbateness and Ideality. Those whose sympathies were with Van Buren and who had similar organizations regarded Van Buren as a polished gentleman, acute, cunning, placid, silent, smooth, pliable, but quietly persistent.

Jackson never sought to conciliate, mollify and lead. He had his objective point, his Firmness and Self Esteem grasped it, his Combativeness

resolved to conquer the position, and his almost utter lack of Secretiveness and policy led him to make straight lines toward his objective point, whoever or whatever might be in the way. How two men, so contrasted in strong characteristics as were Jackson and Van Buren, could conform to each other's characteristics so admirably, has been a mystery to many who have recognized the startling conditions, contrasts and apparent unlikeness of their characters. But characters match smoothly as cog-work in machinery matches. The White Mountain railroad up Mt. Washington has cog-wheel work operated by the locomotive, and the cogs engage the cog-work-rack laid in the roadbed made like an iron ladder with rungs or bars, near enough together for the cogs of the locomotive to work in it and thus propel the train up the steep grade. General Jackson's cog-work, positiveness, dignity, aggressiveness and determination worked like the cog-wheel into Martin Van Buren's Secretiveness and policy. One dared to be aggressive and the other was willing he should be. One could not use policy, and the other was willing his friend should secure success through his strong peculiarity, namely, policy.

Martin Van Buren was a handsome man. His features were smooth and regular; his face plump, his eyes bright, and the lower part of his fore-

head was amply developed, giving him wonderful readiness of perception and marvelous memory, especially of facts, words, names and dates. His Causality was also large, rendering his mind quick and comprehensive in its far-reaching logical ideas. His head was very broad from side to side, giving strong selfish propensities; Secretiveness was enormous; the reader will observe the bulging out of the side head. His Caution was also large and he had also large Acquisitiveness, Constructiveness, Calculation and Order. His Ideality and Mirthfulness were well developed, hence he was smooth and elegant in his manners and fascinating in his conversation.

Jackson made friends by his dash, his pride, his unvarnished will-power and determination and his phenomenal frankness. Besides, Jackson had a fierce temper, a lordly pride, which, combined with his Firmness and Conscientiousness, would not permit him to hesitate in regard to that which was required. He did not stop to count the cost to himself; Martin Van Buren always counted the cost; he never, when a boy, picked up a hot iron in a blacksmith's shop though it had lost its redness while still hot, or if he did, one experience of that sort would last him a lifetime.

As the life and success of Jackson and Van Buren were in a certain sense mutually blended in their public career, though each seemed to be working separately, we will consider them together. Jackson never was called a hypocrite; he never was thought to be sufficiently reticent, guarded, prudent and mindful of consequences. He was called rash and impetuous. He was constantly coruscating and exploding, while Van Buren never took anybody by surprise and he never rushed things. Jackson was more like a hammer that came down with ractory blows, smiting the unwilling iron into shape and making sparks to illuminate the whole field. Martin Van Buren was more like a press in

a machine-shop that pushes a punch an inch in diameter through a plate of cold iron or steel an inch thick and scarcely makes a noise; or, he was like the hydraulic press, which uses cold water as a means of pressure and silently brings a thousand tons of weight to bear on the work in hand. So the hydraulic press doing work in one end of the shop and a trip-hammer at the other end, forging heavy masses of blazing hot iron or steel into desired forms, would illustrate these two characters, and sometimes such machinery is so employed in the same shop to elaborate heavy work which constitutes important parts of a mighty warship. One working noisily and the other noiselessly; the one making a terrible racket and the other working on a different plan silently and yet surely.

Jackson was frank and honest, he was benevolent, he was magnanimous, he was reverent, he was friendly and was fond of pets. He had his mellow side, but it was of the religious and domestic type, where he showed his tenderness and his susceptibility.

Two incidents in the life of General Jackson will show his bravery, and also his gentleness and affection. The history of his life in the wars in which he was engaged and the fierce personal encounters which he had with opponents are well remembered by most readers. The incident which we employ to illustrate his great strength and positiveness of character, which showed that he was brave, amounting to rashness, occurred when he was judge of a county court in the early days of Tennessee. A prisoner who was being brought into court jerked away from the officer, got into a corner and defied arrest. He somehow had obtained possession of a rifle and he threatened to shoot the first man who dared approach him. These facts were reported to Jackson, who was then on the Bench. He instantly adjourned the court for ten minutes and went

down without a hat, and without anything in his hands, presented himself before the culprit and said: "I am General Jackson, the judge of this court. I command you to surrender, and fire, if you dare." He walked up, collared the desperado and single-handed brought him into court. The frankness, the courage and the indomitable will which he manifested

was related to me by the Hon. Nicholas P. Trist, who married Jefferson's granddaughter, and was President Jackson's private secretary, and later minister to Mexico, and made the treaty of peace under President Polk in 1848. He said to me that he awoke one night in the White House and heard footsteps, tramp, tramp, tramp, for an hour.



FIG. 188. GEN. ANDREW JACKSON, PRESIDENT 1829-1837.

in that act cowed the criminal and won a startling victory. Is it a wonder Western men believed in and bravely followed him in military battles!

The other incident occurred when he was President, and when he was in the midst of his great struggle with the United States Senate on the subject of the national bank. A trial, indeed, which was enough to tax the mind and body of any man to the highest extent. This incident

He finally arose and went to ascertain the cause of it, and there he found President Jackson in his night-gown and nightcap walking up and down the long room rolling a baby of his son-in-law, Donaldson, in a little wagon. Mr. Trist earnestly remonstrated with the President on this loss of sleep and rest on his part at such a time, and Jackson replied: "The baby prefers that I should do it; please retire, I will take care of myself."

To show the contrast between Jackson and Van Buren, it will be remembered by all who are old enough to have been cognizant of it at the time, that in the political field, when Van Buren was interested as candidate for President, he was often caricatured in the public press, by prints in the windows and elsewhere, by placing his head and face on the body of a fox, and he was called "the fox." He was believed to be tricky and non-committal. Some incidents illustrating this are in point. While a lawyer at Kinderhook, and perhaps a State Senator, two gentlemen were riding in the stage to that place, and one of them, not liking Mr. Van Buren, insisted that he would not answer a plain question in a direct manner, and they made a wager as to the question. So while the stage was changing horses they ran into Mr. Van Buren's office, and his friend said to him that he and his friend with him had made a wager that he (Mr. Van Buren) would not give a direct answer to a plain question. "And," he continued, "the question is this: Does the sun rise in the east or in the west?" Mr. Van Buren smiled blandly and remarked: "Gentlemen, the terms east and west are conventional." And he did not even realize that he was selling his friend and himself until the opponent laughed heartily and left the office.

While Mr. Van Buren was Secretary of State under General Jackson, John C. Calhoun was Vice-President, and it seemed settled in the President's mind, and in that of the people, that Mr. Calhoun should be the successor. Mr. Van Buren desiring the position, cast about for a quiet method of supplanting Mr. Calhoun in the favor of General Jackson, and it appears that Mr. Van Buren had discovered, in the archives of the State Department, the opinions on file of each member of Monroe's Cabinet respecting General Jackson's invasion of Pensacola, Florida, during

the Seminole War in 1817, while Florida belonged to Spain; for then it was the custom to require the opinion in writing of each member of the Cabinet on any important public matter, after which the President would decide on his course of action. They did not, as now, have cabinet meetings like a caucus.

Calhoun had been Monroe's Secretary of War, and John Quincy Adams, afterward the successful opponent of General Jackson for the Presidency, was Monroe's Secretary of State. Van Buren, occupying the State Department, had quietly found out the opinion Calhoun entertained in respect to his having gone into Pensacola during the Seminole War; and he suggested to President Jackson that if he wished to know he would find in such a pigeon hole in the State Department the opinion of each member of Monroe's Cabinet. He went there and read the opinion of John Quincy Adams, his old opponent, who took strong grounds in favor of Jackson, and doubtless saved him from being cashiered; he then read the opinion of Calhoun, which was strongly against Jackson, urging that he be cashiered and dismissed the service. When Jackson had finished the reading and saw that his pet friend and expected successor, Mr. Calhoun, had been his earnest opponent in that great, trying hour of Jackson's life, and that his former political opponent, Adams, had saved him, Jackson brought his cane down on the floor and uttered his favorite exclamation in his usually emphatic manner—"By the eternal! Calhoun shall never succeed me as President."

When Van Buren saw he had put an iceberg between the President and Vice-President he began to lay his plans to become, himself, Jackson's successor. Calhoun, on the other hand, sought to break the force of Van Buren's position, and studied to comprehend the strength of Van Buren in the North, and he found it was embodied in commerce and man-

ufactures; so Calhoun organized his great opposition to the tariff and by his signal strength of character and potent arguments, wrought up the South, especially South Carolina, to

friends or sent a messenger to allay the troubled waters or not, as there was no telegraph, we do not know, but it is said that for two weeks at least, Calhoun was not seen in Wash-

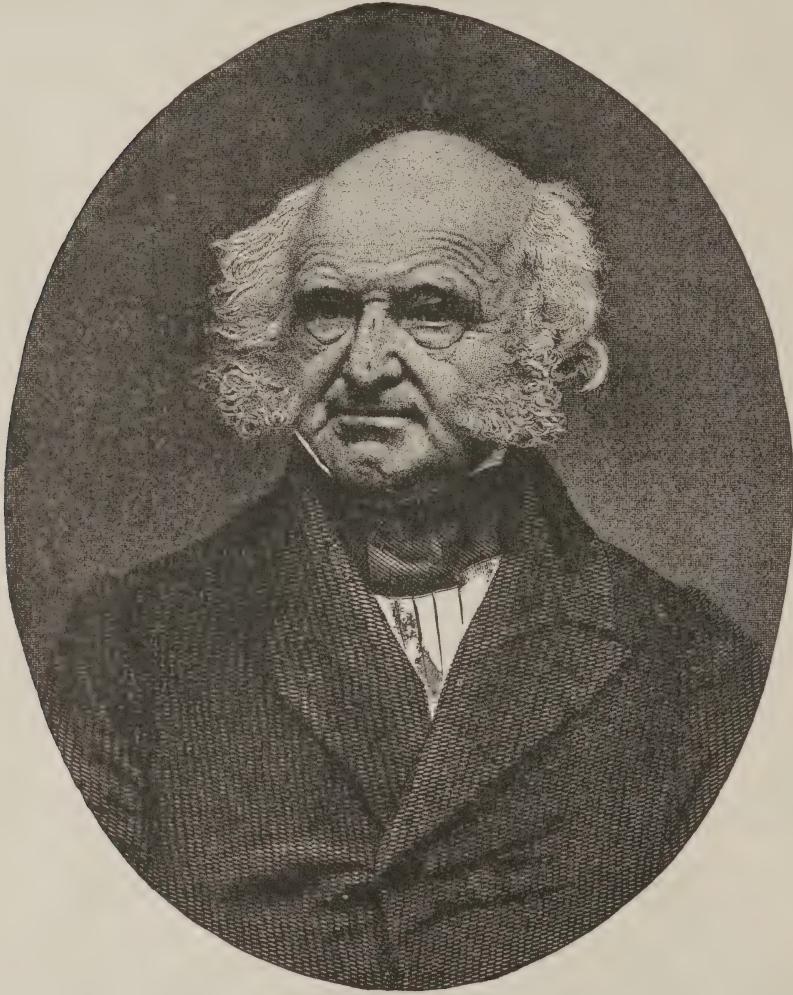


FIG. 189. MARTIN VAN BUREN, PRESIDENT 1837-1841.

the pitch of nullification, which culminated in 1833, and General Scott was sent South to quell it. It is said that President Jackson communicated to Calhoun the assurance, "That if one drop of blood were shed in South Carolina in armed revolution, he would hang him in an hour." Whether Calhoun influenced his

ington. Thus the war of nullification was quelled by a Southerner. Buchanan was a different man !

Jackson was candor, courage and openness itself. He was a brave and a true, but rash man, and it is a little singular to a general observer, that so able and rash a man should be so taken with so secretive and reticent a

man as Van Buren; but they were the complement of each other; Jackson was the lemon and brandy, Van Buren was like the sugar and water—the compound was coöperative. Jackson would plan the able, aggressive idea, and Van Buren would manage by sagacity and tact to carry it out with oily smoothness.

If the secretive Van Buren had not slyly revealed that sleeping state paper to Jackson, Calhoun would not have pushed State Rights to the verge of nullification, and would have been President; then Clay, Webster and other capable men would have saved the country the infliction of several weak occupants of the Presidential chair, and the war of secession in 1861-65 would not have come during this century, if ever.

Van Buren was remarkable for memory of names. Any man or party of men who had been presented to him years before, he would recall without a mistake, and this made him personally popular, for people like to be remembered. In 1841, just before his term expired, the writer, with five friends, called to pay our respects to the retiring President, and when three of us had been introduced, Mr. Van Buren called the fourth one by name, and said he remembered being introduced to him at Syracuse, N.Y., in 1836, when President Jackson was making the tour of the country, and he told the names of the four or five other persons who at that time were presented. A hotel keeper, a salesman, a politician who can call any man by name years after he has once met him, will be popular, and thought to be a special personal friend, and with brain enough to command respect will succeed.

An instance of Mr. Van Buren's remarkable self-control, coolness and power to conceal his state of mind under a bland and equable demeanor, is related of him in connection with the Harrison campaign of 1840, in which Mr. Van Buren was defeated as candidate for a second term. There

being no telegraphs as yet it took weeks to get the returns from all sections of the United States. The news came into Washington on Sunday that the returns from Pennsylvania showed that General Harrison had carried that State, which it was understood would decide the election. A friend of the President desired to be the first to break the news to Mr. Van Buren, and knowing that he was attending service at the Presbyterian Church in Washington he hurried there and waited at the door until Mr. Van Buren came out, and in a hasty, hurried whisper, he informed the President that Harrison had carried Pennsylvania. Mr. Van Buren smiled and bowed most courteously and said: "I am very much obliged to you; General Harrison will then be the next President of the United States; good morning." And one would have supposed from his appearance he had heard the most acceptable news.

"Old Hickory," as he was called, would have looked like a thunder cloud, and lightning would have flashed from his eyes, and with a jerky tread he would have marched off as if something serious had happened or was going to happen.

General Jackson was the seventh president of the United States. He was born at Waxhaw, South Carolina, March 15, 1767. He was elected and took his seat as President March 4, 1829. He served two terms and died June 8, 1845. General Jackson's ancestors were Scotch Presbyterians, who emigrated to this country from the north of Ireland.

Mr. Van Buren, the eighth President of the United States, was Attorney-General and Governor of the State of New York, United States Senator, Minister to England and Secretary of State of the United States under Jackson. He was born at Kinderhook, N. Y., Dec. 5, 1782, and died July 24, 1862.

In further discussing the form of

Mr. Van Buren's head it will be noticed that in the center of the top-head there is an eminence showing large Firmness. It will also be observed that on each side of this eminence the head slopes off very rapidly like the roof of a house. In that sloping section of the head, on each side of Firmness, is located the organ of Conscientiousness, and that is thus shown to have been comparatively deficient in him. Veneration, just forward of Firmness, is also

shown to be large, but Benevolence does not seem to be very strong.

He had a great deal more development of the side-head, where Acquisitiveness, Constructiveness, Secretiveness, Caution and Ideality are located, than he had of Conscientiousness. Consequently he would evade issues, he would slide around them and be non-committal and manifest an apparent disregard of the principles of integrity in the management of affairs.

CHAPTER XXVI.

CAPACITY AND CULTURE.

PHRENOLOGICAL CHARACTER OF
REV. FREDERICK D. POWER.*

You have a large head, measuring as it does $23\frac{1}{4}$ inches in circumference by $14\frac{1}{2}$ inches from the opening of one ear to that of the other, measuring over the top; and such a head requires, as we judge the human constitution, a body which at maturity turns the scales at about 180 pounds. If a head measures 22 inches in circumference, we suppose that 150 pounds of weight is about right, and so weight may vary according to the amount of work it has to do. The boiler need not be larger than the engine normally calls for, and there is a relation between the body and the brain as imitate and as necessary as that which exists between the boiler and the engine.

You inherit, we judge, from the mother your organic make-up, and we think that your body is more like hers than like the father's and that your face is built more like hers. The features are rather light; the bony structure in the face is not as large as it would have been if the inheritance were more after the father. It is a fortunate fact for a boy to re-

semble a good mother, just as in the same family it is a fortunate fact for the daughter to resemble the father, and the children who resemble in that way are much more influential and capable than those in the same family who resemble the other way, and we think that with your size of body, weighing as you do 185 or 190 pounds, you have body enough to support your brain; therefore you may engage to do anything that your culture and experience warrant you in taking up, with the assurance that the brain and the body will be equal to the task.

The type of your intellect is intuitive rather than theoretical. It would be natural for you to make an extemporaneous speech, to talk your thoughts on subjects with which you are familiar, rather than to be obliged to commit it all to formal statements. If you were a public speaker, you might sometimes write part of a discourse, but the auditors would open their eyes when you began to talk without the notes. It is possible for a man like you to write a better statement of a case than he could make orally, so that in print it would have, like iron hoops in contrast with wooden hoops, more crispness and more grip on the subject; but to move an audience, to lead it, convince it, and get the applause, the

*[This phrenological description was given with no knowledge of the name or pursuits of the person.]

contribution or the votes, it would be better for you to think on your feet and select the language after you had run the subject through and knew what you wanted to talk about. You could put the sentences and the statements into such shape as to make them more effective orally; and then you could talk to a congregation in such a way that they would feel that you were in earnest about the matter, personally. That is one reason why a lawyer's work in court is sometimes more palpable and pertinent than the steady discourse of the pulpit. A man has time to prepare a sermon, and sometimes a minister is invited to preach an annual sermon, and he has twelve months to think about it. Of course the people think then that the statements ought to be well based, clear-cut, handsomely composed, and the periods well rounded, smooth and polished. I am not quite certain how a congregation who had never heard a sermon, an argument, or a stump speech, and who were intelligent in matters of experience and book knowledge, would be affected by a solidly written discourse as compared with the impulsive earnestness of an extemporaneous effort, but I believe the great, natural, human brotherhood would be more moved by the off-hand statements.

You are adapted to be a teacher; that is to say, you study subjects at your leisure, and you can utter your thoughts without further preparation. The medical lecturer takes the human skeleton, or afterward the muscular structure, the nervous structure, or the nutritive structure, and though it is scientific work, he employs his mind, composing his statements as he goes along and talks to the students. I think that is the best way to do it, and you are adapted to do work of that sort, and you have a personal influence where you can meet men on their level and talk your knowledge. You have the development that would take and use culture effectively.

If you were an editor, and I were the owner of the paper, I would encourage you in employing a stenographer, so that when you were full of a subject you could walk the room and talk it and urge it as if you were before an audience, without the formality and weary slowness of written composition. Where a discourse is recorded by hand it has a tendency to separate the subject and the audience at a distance from each other, but where a man dictates it it sounds as if he had been talking it right into the ears of his listeners or readers.

You are a good judge of human nature. You understand strangers readily, and are thus instructed as to what to say and how to say it; and when you have said anything, especially if you happen to get on the wrong track in the presence of the man you are talking with, you know it instantly, but you very seldom make a mistake. You could go among strangers and deal wisely with them, and if you were called to transact certain business among strangers you would find your way to the right door of entrance; you would hit the man right; and if a person could accompany you for a day he would be astonished to see the twenty-nine different ways in which you would address thirty men, one after the other, and, if he were bright, he would finally make up his mind that you talked to each one according to that man's needs, disposition, mode of thinking, and type of feeling. Occasionally he would find you deferential, your voice modified, with all authority and dogma left out of it; it would be suggestive. You would speak as though you wanted to know if it suited the man's convenience, and if he thought it was an appropriate thing to do, and finally the man would yield his assent or bring out his contribution liberally; while perhaps some men, who might have gone on the same errand would not have

obtained a favorable hearing or a cent, because they would have gone there with "law and order" in their tones. You would go there as if you were a

rest, you would be glad to receive whatever he might desire to give. That is the way to get a big subscription from a lordly, overbearing man.

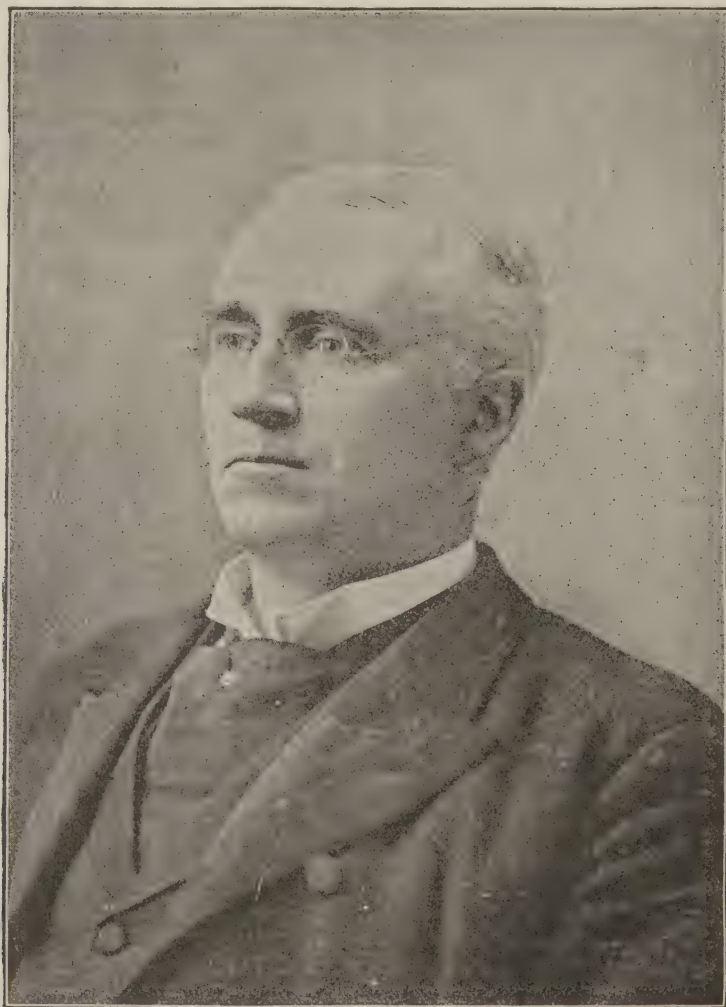


FIG. 190. REV. FREDERICK D. POWER.

brother, and as though you felt that the man had a right to withhold his help if he did not approve of the plan; so you would spread out the plan before him, and then if he chose to become a contributor with the

Let the solicitor show him that his dignity and his rights are recognized, and that nothing is wanted from him unless it pleases his "Gracious Majesty" to give it; and then he will probably be liberal. Another man you

would approach as if you had a right to tell him just how much to give, and as if he expected you would assess him and tell him what a man in his position, as compared with other people, ought to contribute; and a man like that would sometimes ask you, "What are the others giving, what has so and so given, what is the drift? is it \$50, \$25, or 50 cents? What are people giving on an average? He would want to be guided. You would know your men when you found them. One of these over-bearing rulers you never would undertake to dogmatize; that is if you were interested in accomplishing certain results. To such a man you would say, "What do you think of this matter, how can it best be worked up and accomplished? That gratifies his dignity, and makes him feel mellow; and then he will perhaps say to you, "You are better acquainted with this subject than I am; you go ahead and do what you think proper to do and I will back you;" but nobody could argue that into him.

The middle section of your head indicates force of character. You are firm and decided; you are conscientious, truthful, just; you are prudent and watchful. You do not rush madly into dangers and difficulties, and yet when dangers and difficulties lie in the path which it is necessary for you to pursue, you gather up your forces and enter upon it with courage and energy. However, you do not "waste your sweetness on the desert air," and if you can reach any result by smooth and gentle means, you like that way to do it. If you were a policeman, you would say to a man that he was wanted at the station house, and that if he would go along quietly it would be all right, and that if he were willing to walk by the side of you as two friends might walk and talk, it would not excite any observation; but if he were to square off and decline to go, then your grip would be found solid.

You would not coerce unless you must; and when it was necessary for you to do it, you would know what it meant.

You would, in governing a boy, give him a good chance to choose to do right. You would lay the question out before him with all the pros and cons, and say to him that he might have from ten o'clock until one o'clock, that is until lunch time, to think it over, "and that you felt satisfied he would wish to do that which would be right;" and three times out of four he would; but if he did brace up and decline, he would find perhaps that he would be coerced, and by yourself too. My impression is that you go to extreme measures only under extreme necessity; but when you go to that point, there is more iron than silk in the transaction.

You are sensitive to public approval; and rejoice in being indorsed in your opinions and in your purposes. You like to find out which way the grain of the timber runs, and then address yourself to people in a smooth way. You are naturally inclined to try that, and when it is a question in your mind, which is the better way, you try the smooth way first, and you have the ability to conciliate people who are oppugnant with each other, and perhaps with yourself. Most men, when they come to you feeling worried and annoyed about something, go away feeling better than they did when they came. You would tell a man to his face, "I do not blame you for feeling disturbed with the facts given to you on this subject; I should feel disturbed myself under similar circumstances." And that lets a man clear down to the level of common sense; then he is ready to talk up the matter, and to make all the concessions which anybody ought to require.

In a business house you would get more work done cheerfully through this trait, which comes from your mother, than you could get done by those forces which you may have in-

herited from your father. We think the main work of your life is done by persuasion, conciliation and smoothness; and you get that from your mother; and it is only when you cannot make that work with some incorrigible people that the father takes the business in hand (that is the father that is in you); and some people are astonished to see how much grit you have when it is forced to the front.

Your Friendship is known to everybody who knows you as being a very influential factor. Few men can go into indiscriminate association with people, as they average, and exert through friendship more influence than you do. One of the points that is perhaps most natural in you, if you wish to bring people to terms of agreement with yourself on anything that you approve, and that belongs to the public, is to make your friendship felt; to make the man feel, "I have not come here to dictate; I have not come here to bulldoze you, and I have not come here as your superior; but I have come as between two good friends, and whatever is about right will suit both sides." The friendly feeling makes people willing to bend a little, and to do more than they thought they would do. You could get more coöperation and friendly aid in things that are interesting to you than most men could. People do not feel willing to disoblige you. They will even strain a point rather than do so; so they do more, give more, and yield more because you are friendly. Argument is one thing, human duty is another thing, and friendliness is quite another. "I will do it for your sake," is the feeling, and there are conditions in life in which that feeling is a wonderful factor. For example, in church work, a man who can make every parishioner feel that his friendship is earnest and kindly will induce the whole parish to feel that they must find out what the parson wants before they decide what they will de-

cide to do, or not do; because he is as likely to be right as anybody, and they do not like to displease him or disagree with him.

You are a natural financier; you could take care of the secularities even of a church; or, if you were in business, you would make the business side of your life prosperous, and as a business man, you ought to find the prosperous pathway in almost everything you might do, so that if there was a loss you would make it less, and if losses were liable you would evade the loss entirely; and if you did not make any money, you would come out square, and that is sometimes success. It is natural for you to look on the financial side and see what will be successful in regard to business, so that you will know which side is best for you to choose, and whether you can afford to do this or that. If you were a clergyman, and we do not know what you are, you would get the parish out of debt. You would insist upon having commercial promptness and thoroughness in all the fiscal work of the church. If repairs were to be made, you would hunt for an honest man who would do the work at fair figures, and you would get people to send in estimates so as to find out what experts thought the work was worth. You would have all the coal for the year bought when coal was cheapest, and you would want the church credit to be respected wherever they wanted anything. That is financial talent employed in this channel. You would want the credit of the family to be without question so that the word of every member of it would be law on money matters. You would carry your affairs in such a way that even if you did not have much money, people who had something to sell would give you the best opportunity for having it at the best price, and at the best season for buying. They would all believe that it would come out all right.

You love life and want to stay as

long as you can on this side of Jordan, and the thought of life everlasting is enhanced and glorified by this feeling that makes us love life here. The thought that we shall live here as long as we can, and evermore hereafter, is a double interest in the fact of life and existence that we will live forever.

You have literary capability; you have sympathy, justice and hope rather than devoutness, and the religious side of your life will have less humble deference and devout humility than it will of justice that insists upon the right, and mercy which insists upon helping the poor, "and being kindly affectioned one to another." If you were in religious life and work, you would have to take more care of the devout side of your life than you would of the ethical and the sympathetical side, because these latter would take care of themselves. Some men have more sense of harmony than of time in music, so when they sing or play always have to watch the time, while the harmony will take care of itself. Your justice and mercy will take care of themselves, but you might have to watch the deferential and devout side of conduct; and you never will be charged with Phariseism. You would not walk through life as if you were laboring under an awful responsibility, and expected that the Judge of all the earth was ready to seek action against you. You would be more likely to say "Our Father" than to address God as "The Eternal Judge of all the earth!"

You are ingenious; you would have made a good mechanic. You are skillful to understand that which comes under the domain of construction, adaptation and fitness. You would do well in literary or scientific work. You might have been an engineer, an architect or an artist. You have a hearty, earnest energy which brings you right into the ranks of effort. For example, as a

boy, if you were engaged in the games on the campus, your associates would think that you would do more, do it better, and do it more promptly than most of them. Whenever you undertake to work with the hands you hustle things, accomplish something and overcome difficulty. If you were in a catastrophe at sea or on a railroad, and you did not get hurt yourself, they would think that you were a first-rate worker to help rescue others. You have a helping hand and an earnest energy which could manifest itself in play or in industrial effort, consequently your mind has a backing of courage, fortitude, enterprise and a willingness to do that which ought to be done, and thus you amount to something in any field that you choose to occupy.

BIOGRAPHY.

Frederick D. Power was born January 23, 1851, in the vicinity of Yorktown, Va., a region distinguished alike by reminiscences of the war for independence and that for the preservation of the Union. He was the second of nine children, being the son of Dr. Robert H. Power, also a native of Virginia, who had married Miss Abigail M. Jencks, of Madison County, New York, whose education was received at the well-known school of Miss Willard, of Troy, in her native State. His primary education was under the tuition of his cultured mother at the home on the farm, the father being a practicing physician in the vicinity. In 1868 young Power entered Bethany College, near Wellsburgh, Va., an institution founded by Mr. Alexander Campbell. His proficiency in study was such that he completed the full classical course in three years. His diploma bears the signature of James A. Garfield as one of the trustees of the college. While yet a student, at the age of 18 years, he commenced his work as preacher of the Gospel, and two years later was regularly ordained to the ministry. On the

18th of March, 1874, Mr. Power was married to Miss Emily B. Alsop, of Fredericksburg, Va., and in the following September, became adjunct Professor of Ancient Languages in his alma mater, having previously served several churches for a brief period in Eastern Virginia. He remained at the college one year, and was then called in September, 1875, to the pastorate of the Christian Church in Washington, D. C., which position he has occupied without intermission to the present time. The church was then feeble, but has steadily increased in numbers and influence until it now contains 650 communicants, among whom have been President Garfield and Judge Jeremiah Black, besides numerous other distinguished officials of the government, from all sections of the country. The present church building is an elegant, commodious structure on Vermont avenue, which was completed at a cost of \$67,000, and was dedicated June 20, 1884, President W. K. Pendleton of Bethany College officiating. The plain little frame structure previously occupied was the scene of some of the plottings of the assassin Guiteau, who designed to execute his purpose while the President was at worship, but was foiled by the non-appearance of the President at the intended hour. When the corner stone of the present edifice was laid in 1882, the reputation of the late President had so attracted public attention to the church of which he was a member, that not less than five thousand persons were present.

Mr. Power was appointed chaplain of the United States House of Representatives in 1881 and continued to perform its functions to the end of the Forty-seventh Congress. The chaste propriety and impressiveness of the address at the Garfield obsequies were matters of much comment.

Mr. Power is a fluent, impressive speaker, and generally speaks without manuscript, although his style is so smooth and accurate in its diction,

and the modulations of his euphonious voice are so agreeable that his discourse appears as though it might have been memorized. These qualities in the vehicle for the expression of sentiments and emotions, sober and serious as well as gay and humorous, have made him in addition to his decided success in the pulpit, a most acceptable speaker in the popular lecture field, which he is frequently invited to occupy. His lecture on the "Life of President Garfield" has been frequently repeated, and his famous lecture on "Blockheads" has been and continues to be very popular, for its moral force and its humorous allusions. He has achieved so high a reputation by these and others of his lectures that he is in constant demand for their delivery before the various moral and religious associations of the land, as he is deeply interested in every laudable enterprise for the improvement and elevation of society. The Christian Endeavor work, the Young Men's Christian Associations, and the various temperance movements, find in him an ardent supporter. He is one of the vice-presidents of the National Temperance Society, of which Gen. O. O. Howard is president, and is secretary of the Congressional Temperance Society, composed of Senators and Representatives in Congress.

Mr. Power is a correspondent of the *Christian Standard*, of Cincinnati, reported to be the most widely-circulated religious journal published west of the Allegheny mountains. His letters are always interesting—those published while he was traveling in Europe in 1892 were remarkably so, evincing superior ability in observation and power of description.

In physical proportions Mr. Power exhibits quite an imposing presence. He is nearly six feet high and weighs 185 pounds, so that his large, active brain is well supported in a finely-balanced temperament. M. C. T.

PROF. JOHN S. NEWBERRY, M. D.

THIS portrait represents a strong and remarkable person. His temperament represents the Motive, Mental type. He had a tall, bony frame, a dark complexion, prominent features and a high crown of head which are indications of the Motive temperament. Then the sharpness of the features and the comparative fineness of the quality indicate the Mental temperament. His facility of rapid mental activity and persistent, unresting labor are evinced by a controlling Motive temperament inspired by the activities and intensities belonging to the Mental temperament. The large development of the perceptive organs, giving to the base of the forehead a projecting appearance enabled him to grasp a vast amount of detail and to be an accurate and versatile scholar. He had a remarkable memory; facts once acquired remained as a part of himself and he could reproduce lines of knowledge which had once been familiar to him, giving him a vivid realization, so that all he had learned stood ready to second any effort which he made in the pursuit of knowledge in new channels and thereby his scholarship and his information became accumulative. His memory carried a record of all he had learned and known, and served as an illumination of the pathway on which he was working. That type of intellect serves a man somewhat as a head-light of a locomotive in the night, serves the engineer. The locomotive carries its own light and throwing it miles ahead it illumines the track and makes clear everything that is in front, and so his accumulated knowledge being remembered and vividly held in solution, illuminated the pathway of his progress and helped to aggregate his knowledge.

The upper part of his forehead was not small, but compared with the perceptive it seems less developed than it really was. The front head, the part which is not covered by hair, far enough down to take in the eyes, was

inherited from his mother; the central and back section of the head, as far as we can see it, and the middle section of the face, taking in the nose and cheek-bones, was evidently inherited from the father. So he had the sharp intuition of the feminine and the tendency to delicacy of thought and minutiae of appreciation, served to put him into possession of surrounding knowledge and do it almost instantly, while his determination, his force of character, his independence and his ambition came from the father and made him a masterful worker. He found out the facts and drew his own inferences. He did not start with logical affairs and hunt for facts to verify them, but he got the facts first. His cautiousness rendered him guarded and prudent; careful in his investigations and safe in his statements, but he was able to think more clearly and rapidly than most investigators and he had the courage of his convictions, which is a masculine instinct. His friendship was a strong trait. He allied himself to people, or allied people to him. He was the magnet, and other people were the objects attracted. He was the central figure and he was stronger and more influential in his influence than those with whom he generally was associated, consequently he became an attraction to other people and a central figure in anything that he aimed to accomplish. He had large Hope, which is located about where the hair unites with the bald part of the front head, and a line drawn from the front margin of the whisker; forward of the opening of the ear and following the line of the hair nearly to the top of the head shows large elevation and fullness at Hope and Firmness, which two large developments made him decidedly hopeful and headstrong. Self esteem was amply developed and so were caution and Approbativeness and these harnessed to anything that interested his intellect would make a factor of intense power and influence in any

direction. He had the accuracy of a scientific investigator; he had the courage of a pioneer. He had force and a masterly spirit inherited from

ment of the town by immigration from Dorchester, Mass., in 1635, nearly two centuries.

Henry Newberry, the father of

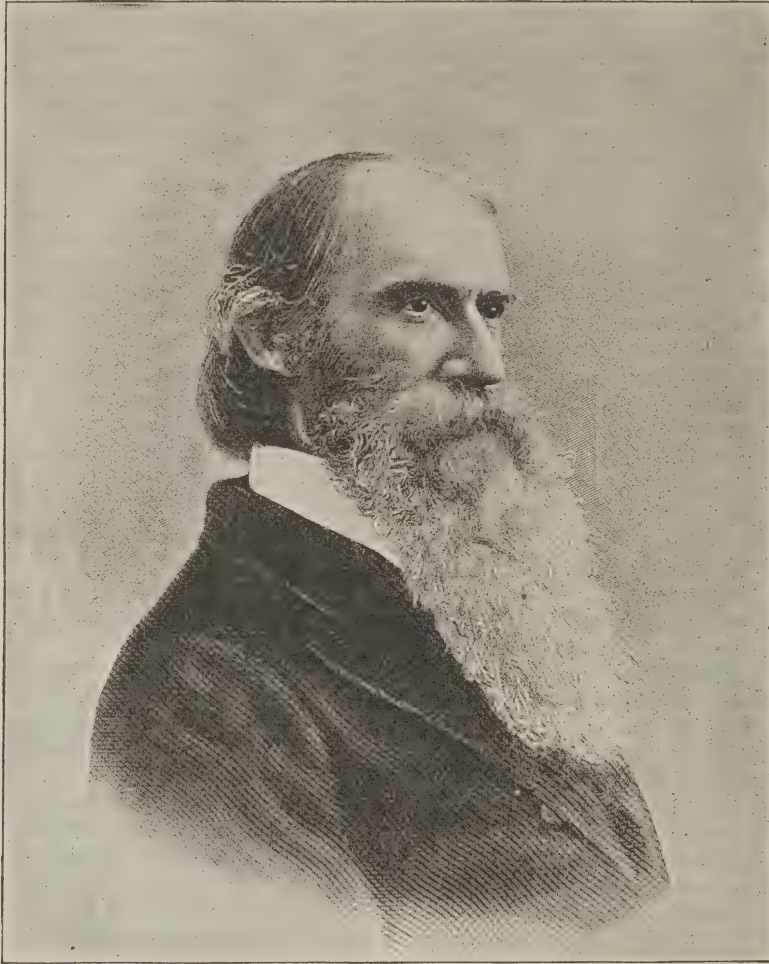


FIG. 191. PROF. JOHN S. NEWBERRY, M. D.

the father and from his mother he had the delicate tenderness, sympathy and affection which belong to the constitution of refined womanhood.

BIOGRAPHY.

DR. NEWBERRY was born December 22, 1822, in the town of Windsor, Conn., where his eminent ancestors had lived since the settle-

ment of the town by immigration from Dorchester, Mass., in 1635, nearly two centuries. Henry Newberry, the father of John Strong Newberry, removed to the "Western Reserve," Ohio, in 1824. He owned at first a square mile of land near the present center of the city of Cleveland, but exchanged it for a tract at the falls of the Cuyahoga River, nine miles south, where at that time the water power was very valuable. He founded the town since known as Cuyahoga Falls,

and engaged actively in the development of the coal resources of that region. Upon his property was mined the first coal known to have been offered for sale in Ohio.

Dr. Newberry's early life was passed amid fortunate conditions of competence and refinement, and the influence of his natural surroundings on the mind of the boy can be plainly traced. Before he entered college he had collected and studied mollusca and made an herbarium and a catalogue of the flora of the State, and had substantially mastered the zoology and botany of his county. In 1846, at the age of twenty-four, he graduated from the Western Reserve College, at Hudson, Ohio. During his college course and afterward he was a close friend of his teacher in geology and natural science, Professor Samuel St. John. A classmate writes of him: "Not a coarse word, not a cruel speech or act, not an ungentle thing of his doing occurs to the recollection of intimate acquaintance with him." After graduation he studied medicine as a post-graduate of the college, and was assistant to Samuel St. John, the Professor in Chemistry in the Cleveland Medical School, from which he took his degree of M.D. in 1848. During the year following he practiced medicine at Cuyahoga Falls, Ohio, and in 1849 he went to Europe for further medical study, attended upon lectures and clinics in Paris, frequented L'Ecole des Mines and Le Jardin des Plantes, and heard lectures of Adolphe Brongniart, the great paleobotanist of that day. Before returning to America he visited the south of France, Italy and Switzerland.

Notwithstanding Dr. Newberry's flattering success as a physician, his inclination toward scientific work was unconquerable. In 1855 he left his practice and accepted the position of geologist and botanist on the government expedition to northern California and Oregon. Dr. Newberry made large collections in geology,

botany and zoology, and spent the following year in Washington preparing his report, which is contained in the sixth volume of the Pacific Railroad Reports. In 1856-7 he was Professor of Chemistry and Natural History in the Columbian College, Washington, D. C.

Dr. Newberry had scarcely completed his report of the Williamson expedition before he became the physician and naturalist of the Colorado exploration expedition under Lieutenant Joseph C. Ives. The report of the Ives expedition was published in 1861. The geological report covers all the region which Dr. Newberry traversed from San Diego to Fort Leavenworth, and was the first detailed description of the lower Colorado region. The outbreak of the War of the Rebellion found Dr. Newberry in Washington in the service of the War Department, with which he had been connected for five years as assistant surgeon. In the supreme hour of his country's peril he forsook his scientific work and gave to the nation the benefit of his medical training. Depots for the distribution of hospital supplies were rapidly established and plans made for the relief of the sick and wounded. During all the years of the war Dr. Newberry was active in ameliorating the sufferings of both friend and foe, which, with kindness of heart, was doubtless a much more grateful work than would have been that of aggression and destruction. In overseeing the work of his organization he at times followed the armies, and was present at the battle of Chattanooga. All the agents for this work were selected by Dr. Newberry and assigned to their special duties. With an executive ability that is rarely equaled he seemed instinctively to put every man at the task he was best fitted for and to keep him up to his most efficient work. All reported to him at least every month and oftener, when emergencies demanded. All were treated with the utmost kindness and

consideration, and all learned to love and to honor him. No part of his life-work is entitled to higher honor. His report upon the work of his department exhibits the character and magnitude of his labors. Over \$800,000 in money was expended in the benevolent work of the commission, and hospital stores were distributed to the value of \$5,000,000. His scientific reputation was fully established at the incorporation of the National Academy of Sciences; in 1863 he was named by Congress as one of the fifty original members. At the close of the war Dr. Newberry was employed at the Smithsonian Institution as collaborator and referee in matters relating to geology. When the Chair of Geology and Paleontology in the School of Mines, Columbia College, was established, Dr. Newberry was called to the place and honorably filled it from September, 1866, to the time of his death, a period of twenty-six years.

One of his highest and most appreciated honors fell to him in 1888, in the award of the Murchison Medal, conferred by the Geological Society of London for distinguished services to geological science. In 1889 he was first vice-president of the Geological Society of America, which he had helped to institute in 1888. He was one of the committee of the American Association for the Advancement of Science, which was instrumental in organizing the International Congress of Geologists, and perhaps his crowning and well-deserved honor as a geologist came in his election as president of the congress for the Washington meeting in August, 1891. But the tribute came too late for him to perform the duties of the office, or even to attend the meeting. Restoration was sought in the South, in California, on the shore of Lake Superior, and at his home of later years, Connecticut, but the rest had been too long deferred. On the night of December 7, 1892, at his residence in New Haven, the honored

scientist, the beloved teacher, the noble man, went to his well-earned repose. Mrs. Newberry, with five sons and one daughter, are now living to do honor to the memory of the revered husband and father.

With his attractive personality, rich experience, vast knowledge, and his social, generous nature, Dr. Newberry, more than any other geologist of America, was a "Nestor" to the younger generation of workers in geology. Many had worked under his direction; in later years many young men had been his students in the School of Mines, and a host of men had profited by his assistance and fatherly advice. There was an unaffected cordiality and cheeriness in his manner which won instant confidence. No young man ever left his presence without encouragement and stimulus. His greatest influence, unseen, but gracious and enduring, was in the personal contact with students and friends, and the impress of his marked individuality on younger men.

In the memory of those who knew him he still lives as a noble personality, impressive in appearance, charming in companionship, wise in counsel, himself greater than any work that he has done. He was great enough to demand our reverence, good enough to claim our affection, and human enough to win our sympathy. His abilities were such that he could have taken a high place in almost any profession. In his chosen field of natural science he was a master, and everywhere, whether in society, the university or scientific circles, he was a conspicuous figure, admired and honored. He was born before the days of scientific schools, and lacked the advantages of special instruction and scientific association. In his scientific work he was largely a self-trained observer and independent worker, one of the few great "naturalists" by impulse. His range, therefore, was not limited, nor his independence checked by undue regard for authority of predecessors or teachers.

CHAPTER XXVII.

CHARACTERISTICS OF SOME BOYS.

IS it a wonder that parental love still tenderly follows the precious pet though he should become prodigal? Right culture might save the wayward; wrong training might spoil the good. It is so with horses as with boys.

No subject can be of more interest to the human race than the proper development and right culture of the young, and during the period of childhood and youth is the natural time for the physical, intellectual, moral, mechanical and governmental culture. That is the plastic season; the time for bending the twig to make the future tree incline rightly. The mother is the natural guardian and guide of childhood and should be wisely and well-trained for the important task.

Occasionally a mother seems endowed by nature with a genius for government and with an aptitude for training and educating children. Other mothers who are good and true and anxious seem to be awkward at their work; they apply wrong methods and partly because they do not understand physiology and phrenology. Let us apply the doctrines of phrenology, temperament and physiology to the management of some children whose portraits we have the pleasure to introduce, and whose names, residence and parents are wholly unknown to the writer, mostly from the studio of that prince of child photographers, Rockwood, of 1440 Broadway, New York City.

Figure 192 is a picture of robust health; full of life, brimming with

vitality and overflowing with joy and enthusiasm, and yet his joy is inclined to be rough. He has a great brain and decided mental force. He cannot wait to be smooth, gentle and pliable. He sees his objective point and goes for it, through briars or thorns, or diagonally across the muddy street, regardless of clean shoes and spotless garments. He is a boy all over and thinks he is almost a man. Power is not necessarily bad, although it may be inconvenient and it may wear out shoes, tear clothes and slam doors. This boy is something like a bunch of firecrackers which is explosive although it may have no malign intentions. Powder, when loose, if exploded before a person's face may destroy the eyes, singe the hair and pepper the skin; but the same powder, if placed in a gun-barrel, may explode within an inch of the huntsman's keen eye without doing him the least harm, because it is under proper guidance and right control; in other words the fiery element is under the guidance of culture without the irksome restraints of prohibition. A frolicking colt, calf or lamb will tear through the fields but has no malign purposes, it has no desire to do any mischief nor any disposition to harm, hurt or molest, and yet it may be an inconvenience and an innocent spoiler. It may trample the meadow grass, damage the lawn or ruin the garden, but the animal has only vitality and impulsive energy and a wish to work it off but no desire to harm or injure anything.

This boy has a wide head through the region of the ears. He has large Destructiveness and Combativeness. He thinks he can do anything that ought to be done and tries some things of the equity of which he may

thing he is curious about. He will become an able man, a power in the world. He will make a fine lawyer if he can hold still long enough to become polished on the scholastic grind-stone.



FIG. 192. A FULL PATTERN BOY.

have doubts. Bravery is written all over his face and head; hearty, healthy zeal sparkles in every fiber of his system. He likes large, heavy, noisy playthings and wonders a horn or a drum does not sound pleasantly to everybody. He has a magnificent intellect. The upper half of his forehead is admirably developed and therefore he is old of his age and insists upon answers to questions that are above his years. He does not see why he should not know any-

He has large Mirthfulness, but it is not shown so much in wit as it is in the fun of robust childhood. He has large Ideality, hence he is enthusiastic; he builds castles in the air and thinks he can inhabit and control them, and yet this boy has Caution. Rash as he may appear he will show Caution strongly marked in his character, but it is coupled with such an amount of Combativeness and Destructiveness, and with such earnest energy that he will seem to need a

guide, overseer and ruler, but his training ought to be in reference to guiding and not to overseeing and ruling him. He ought to be led to feel that doing as people who have a right to direct him, require, is his duty and is profitable for him to do, but he ought not to be rudely silenced or snubbed. His intellect is as bright as a dollar and he can understand danger and difficulty if they are



FIG. 193. THE STUDENT.

rightly presented and explained, but he is not likely to be very careful in his administration. Besides, he has wonderful Spirituality and Imitation, leveling up the front and the lateral portions of the top-head. He hopes and believes by the acre—by the hemisphere. He reads strangers well, and he will be wise in his appreciation of those who are strangers to him; he will like and dislike at sight.

The restraints on him ought to be gentle; a little like an India rubber halter for a horse—one that will yield

and stretch, yet not break. If he were fastened with a chain halter he might break it as some horses do, but if he were tied with elastic material it would suggest at least limited liberty and he would not chafe under it.

He will make a popular orator, and he ought to be educated physically and mentally as far and as carefully as the schools can do it, but he needs a great deal of room and he needs playthings that will make a noise, and yet will profit by a great deal of patience and care bestowed upon his conduct and career, and he will make his family proud of him if he can be kept on the track. If the track is substantial enough and wisely laid and if the parents and teachers are wise engineers they will talk about this boy when they reach into the aged decades and they will say: "He was a pupil of mine so many years ago, and now see what he has achieved."

Figure 193 is a marked contrast to Fig. 192. This boy has the Mental temperament and not enough of the Vital. He has rather a slender constitution and he has an anxious look in his face. He is light in his build; his head is large for his body and he is too much inclined to study and think. He is very anxious, and with his large Caution he ought to be taught not to be afraid of darkness, except to avoid pitfalls and obstructions. He should be hopefully taught in regard to the great questions of the future. His moral teachings ought not to be somber, for he is naturally inclined to be anxious and sad. Contrast his face with that of Fig. 192. This shows the scholar, the meditative thinker, the reasoner, the artist and the poet, "the good boy," but not so much the worker or one that plays, hustles and subdues. He is sedate and decorous in his ways. He ought not to be pushed in his studies and probably should not be allowed to study as much as he desires. If he could have a bicycle it would be good for him, or if he could have something in the way of apparatus for

exercise where weights, pulleys and ropes are used, so that he could use them any five minutes during the day when he felt an inclination for it, it would be just the thing for him. The gymnasium is desirable for many young people under different circumstances, but this boy ought to have

This is the mental and sentimental, delicate organization and should be carefully guided and regulated and should have guidance in both exercise and study, and he ought to take one-third more sleep than Fig. 192 would seem to require.

Fig. 194 is a thinker. He will be



FIG. 194. THE PHYSICIAN.

apparatus in his own house, where he can use it any minute, early or late, rain or shine, and he should not be permitted to exercise with heavy apparatus. Such boys are meditative and they are inclined to overwork; if others around them are lifting heavy weights or using other heavy apparatus they will try to do the same thing, greatly to their detriment. Fig. 192 works hard from the mere pleasure of it; he would work hard doing nothing but playing and frolicking; Fig. 193 would overwork without working hard in the same amusements.

fond of data and detail, will enjoy such studies as belong to the physician, and he would make a good physician. He has Destructiveness, Secretiveness, Acquisitiveness, Caution and Constructiveness, and these would make him wise in the sphere of medical practice and medical knowledge and expert in surgery. He has a capital memory and will hold tenaciously whatever he acquires in regard to facts and science. He is a natural historian; he is a keen critic, knows resemblances and differences, and is fond of acquiring knowledge. He will listen while he is being talked

to and will ask questions when the lesson is finished. He is honest, cautious, mindful of consequences, and on the whole has a harmonious organization inclined toward the mental, and perhaps inclined to study more than is safe or desirable.

a natural financier; will save the odds and ends, and will be rich if there is any chance to be so. On the opposite temple, where the outline comes into view, there is a special development of Constructiveness, which, in medicine, would make him a sur-



FIG. 195. THE SCHOLAR AND HISTORIAN.

Fig. 195 has an old head on young shoulders, and it is a well balanced head. There is talent for educational culture, and especially for historical knowledge. This child would learn all that belongs to the classical; would dip into science with avidity, and be masterful in logic, in music, in mechanism, and especially in the acquisition of property. On the side of the head which is turned most to view will be seen, upward from the ear, a special breadth and fullness, and that is at the location of Acquisitiveness. The head is broad at that point, and he will take rank as

geon, and in mechanics an engineer.

This child should not be pushed in education; there will be no need of that, but he should be guided and regulated. He ought to have plain and wholesome diet and abundant opportunity for sleep.

The moral organs are well balanced. This is the natural scholar, and he will find out something about everything that is going on. Notice how broad apart the eyes are; this indicates memory of forms and magnitudes, ability for drawing, and the basis of artistic skill and mechanical capability.

CHAPTER XXVIII.

A FOND FATHER AND HIS PETS.

PARENTAL affection is generally more strongly marked in the mother than in the father, or the type of character as evinced by parental affection is manifested differently by the father and the mother.

Pope expresses this thought clearly in the following line,

"The mothers nurse it and the sires defend."



FIG. 196.—GEN. BALLINGTON BOOTH AND DAUGHTER.

Fig. 196.—We have here General Ballington Booth of the Salvation Army with his little daughter and his pet son, who is already called the "General." In build of face and expression the daughter and the son resemble the father, as seen in the large forehead indicating intellectual vigor and organizing power, the large Mirthfulness which is the basis of wit and gaiety, the large Ideality which gives a

sense of refinement, Imitation which is the basis of conformity and adaptation, and in Agreeableness which gives smoothness to the disposition and its manifestations. We notice too, in the father, large Language, shown by the full and liquid eye; the children have inherited it. The little daughter nestling in the embrace of the father is the personification of innocence and happiness. Her face evidently says, "What is there in this wide world better than this?" We think the father resembles his mother and has a good many of the feminine qualities, and while as a father he is perhaps more proud of his darling boy, he is more



FIG. 197.—THE LITTLE "GEN'AL."

tender of and patient with the precious girl. Still, paternal love is often very strong in the male, and has not only the manly vigor for protecting the offspring but the paternal tenderness and delicate fondness which is equal to the maternal.

Fig 197.—The little boy is presented in three aspects. The artist evidently has awakened the attention of the boy in the first sitting. He had presented something for him to look at that had aroused his interest so that the expression of the face evinces awakened attention. If that facial expression were translated it would read, "What in the world is that? I have never seen anything like it before; it looks pretty, but it is so strange!"



FIG. 198.—INTEREST HEIGHTENED.

Fig. 198.—In the second picture the expression is heightened. The object that was presented to awaken and rivet his attention has been modified. If it was a toy-monkey or a queer doll it has been presented in a more startling manner and the boy's mouth is opened. He thinks it is funny and wishes he had it for his own. In the third picture the object of "attention has been made grotesque. "Too funny for anything!" The expression of the first picture shows attention, the second one intensified interest with Mirthfulness, and the third one (Fig. 199) shows that he has made up his mind that it is very funny and he is going to enjoy it to the full. If such a face ever has a sober, hard, sour look we wish we had a picture of it to complete the series, or rather with which to commence the series, but the face of the father and also the face of the little girl would indi-

cate that a sour expression of the boy would not be natural.

That little fellow has great possibilities. He has a fine intellect and a very sensitive and susceptible temperament. He has a fertile imagina-



FIG. 199.—FUN ALIVE.

tion, energy of character, shrewdness, policy, prudence, ambition and strong affection. He does not need "line upon line," or training to awaken thought and instruct the understanding. A hint of a truth is to him a flash-light, vivid and intense. He will turn every page in a book if it be illustrated, and gather an abstract of the contents before he settles down to a critical perusal, and he will need wise restraint and guidance to prevent overworking his precocious brain-power. He would manifest talent in classical literature, he would make a fine public speaker, would be fond of poetry and write it; he is fond of music, and very fond of mirth, and he can copy and imitate anything that he approves. The little girl will show a strong character, but there are indications of more gentleness and grace than of power and severity.

Fig. 200.—We now notice a lovely little girl in three aspects and in three states of mind. The first is a sober, calm, quiet, normal face, unexcited. The mouth is closed, the features are placid, the eye is calm and thoughtful, and the head has the pose of attention and meditation, and it may be

called a face in the normal state. The head seems to be amply developed in front where the intellectual organs are located, and it is large in the top-



FIG. 200.—QUIET, NORMAL FACE.

head, the moral nature being amply developed.

Fig. 201.—The second presentation, the side-view, changes the expression of the eye; "What is it?" seems to be the question. The lips are apart, showing intensity of thought and of feeling. In the first picture the subjective or meditative tendency is exhibited, and in the second the objective appears to have attracted her attention and awakened her thought. She looks critical and earnest as if she would devour the facts involved and know all about it. The reader will observe the length of the head from the ear to the crown. The head is not very broad, and measuring from the root of the nose to the region of the crown the head is long or high. There is evidence also of a long back-head; behind the ears the region of the social affections seems to be decidedly strong. Benevolence is uncommonly large, the front por-

tion of the top-head is well rounded up, and such a child should not be pushed in study, should not be exploited before company; she should be permitted to live a quiet, natural life and not be put forward in company, allowed to hear marvelous stories or read startling or extravagant books, and should be fed hygienically so as to keep the nerves calm and cool and the digestion and the nutrition good. The old Roman proverb, "Whom the gods love die young," is more likely to be verified in temperaments like this than in the rude, robust sort, and what a contrast between this girl and the first boy in the January number! He was ruddy, tough, earnest, brave and aggressive and able to endure the "ills that flesh is heir to" successfully,



FIG. 201.—CURIOSITY.

while this delicate plant needs to be housed and sheltered like an exotic plant and guarded against the inclemencies of weather and other conditions that tax endurance.

Fig. 202. In the third presentation of her she looks human and less angelic, as if she might have some

hearty interest in and relish for the things of time and sense. She smiles, and if we had another picture where she is laughing outright like the little "General" it would complete that



FIG. 202.—AMIALE MIRTH

series, but she will do more of smiling than of boisterous laughing in this world. A very gracious lady friend of mine, who thought that possibly laughter was wicked, sometimes would say, "I was almost tempted to smile." We would like to see this little girl tempted to ripened, explosive mirth. This girl's temperament is of the mental type, which is the basis of susceptibility and taste, but not so much of that kind of earnest, snappy force which siezes truth on the fly and makes herself the master spirit in the group. She is more like the mild rays of a summer sunset than like the glory of midday; is adapted to grace life rather than to rule it, to lead rather than to coerce.

Fig. 203. Here we have an old youngster, Ernest Henry Schelling, the musical prodigy, only four and a half years old when this picture was taken. This presents a very ripened

and substantial face. We met him at this age and made a careful personal examination. The fiber of his constitution was remarkably firm and solid, his complexion was dark and his physical development very dense. His earnest exercise in playing the piano had hardened his arms and given him a manly manifestation of the body. He had a wonderful memory of facts, of thoughts and things, and was a critic of human character. The portrait shows wonderful Ideality and Sublimity, large Constructiveness and a large development of the organs of Tune and Time. The training and public exposition of an infant like him would be likely to spoil many constitutions, but where the temperament is as firm and solid as this and the nutrition perfect, there is endurance to bear excitement and public applause without being so much carried away and injuriously affected by the nervous excitability as would be the case in a softer and more pliable temperament. When he was before the public in Philadelphia and New York at the time this picture was taken, he was attracting great attention in musical circles, and it was wonderful to see such a baby on the piano stool, with his feet ten inches from the floor and evoking from the great instrument its magnificent harmonies, and yet, as soon as he was through with his work, he would go around the room, toying with the things, just as any little child of his age would, and they had to call his attention and bring him back to his work, and when he was at that he was a man and masterful.

Fig. 204. We now introduce another boy whose father and grandfather we happen to know. The apparatus which is shown in the picture, the tricycle, the base-ball, and the attitude of the boy as he sits for his picture with his panting steed at rest, is about as boyish a picture as can be found, and yet there is a world of manliness and sincerity about it. See those sturdy legs as if nutrition were

abundant and went willingly to the extremities. Look at the broad head and face; courage, executiveness and power to conquer are shown in every outline. What a fine development of intellect and what a broad, massive forehead! He can master books as well as the tricycle and base-ball. He appreciates fun and his large

Destructiveness and Combativeness are large, and when he plays he plays to win and to conquer. He has Caution and Secretiveness enough to guide his force and earnestness and keep him on the safe track, and that same force and earnestness will give him speed. He is capable of scholarship, of mechanical ingenuity and



FIG. 203.—ERNEST HENRY SCHELLING, MUSICAL PRODIGY.

Mirthfulness gives him fullness of that joyous feeling, but like other healthy boys he looks as if he was in dead earnest about his amusement. His

artistic taste. He has the love of property and capacity for winning it. He has Secretiveness enough to conceal his purposes or modify his man-

ners so as to secure success without divulging all his plans. His face has the appearance expressed by the words "I am here, it is I, whatever

ment, mental and physical, to earn and to secure success, triumph, honor and achievement in any field of effort which may be presented.



FIG. 204.—G. R.—HEALTH, COURAGE, ENTERPRISE, MANLINESS.

is wanted I am ready for it," whether it be a lesson, a race, a frolic or a fight. This boy has the temperament and the constitutional develop-

Like a good locomotive, he only needs a sound track and a proper destination. He can make the steam and use it!

CHAPTER XXIX.

CHILDREN, HARD AND EASY TO MANAGE.

CHILDREN vary in constitution and temperament, in character and talents, as much as parents do. Some are bright, excitable, nervous, fretty and sensitive, and inclined to be restless and troublesome. Others are plump, wholesome, healthy, hardy, sensible and self-poised, and have a natural, constitutional tendency to be placid and quiet. These differences are sometimes inherited normally and sometimes, they result from special maternal conditions that were influential in modifying the character, which is thus incidentally inherited. All such different types of children need treatment suited to their several mental and physical conditions, and no work can be more important to families and the public than that of the proper training and culture of our hopeful successors. Parents, nurses and teachers may rightly mold or mar the future fathers and mothers of the race.

Fig. 205 is a most positive and earnest character. The temperament is excitable and nervous, yet strong, hence the boy is restless and impetuous. His head is large for his body and yet he is healthy. Observe the breadth of the head, how low down the ear is! How full, broad and rounded is the whole side head! All his selfish propensities are decidedly strong. He is organized to grapple with duty and difficulty and to make himself master of his surroundings if possible. He has a high temper; is combative, aggressive and severe when excited and inclined to fight out his purpose or his griev-

ance on the spot. His Cautiousness is large, hence he is apprehensive. His Secretiveness is large, hence he is inclined to manifest slyness in the accomplishment of his purposes where he cannot do it otherwise. He has large Acquisitiveness; is greedy for ownership, anxious for property and will not share with others if he can help it; he wants the largest, the best and the most. He is ingenious and mechanical. He prefers heavy playthings and likes to make a racket. Noise is music to him, even if it is rough noise. Other children who are equally robust, hearty, zealous and earnest, may be genial, peaceful and good-natured, but this one has aggressive severity in his activity and will be likely to quarrel with his equals and domineer over younger children and take the lion's share everywhere he can. He has large Mirthfulness. He enjoys fun, but he likes to have it robust and rough, and he will enjoy football more than chess. He has ingenuity, and he also has a taste for the beautiful. He is a keen thinker, knows a good deal, forms sharply outlined opinions and is ready to back up his opinions with his strength and his determination. He will make a fine scholar if he can be rightly inducted and conducted. He has talent for mathematics, for philosophy and language. He will make a splendid speaker if he can be kept still long enough to get his education and to be trained into orderly habits without too much friction. He has strong affections and can be best molded

and managed through his affections, and he should have treatment that is gentle yet firm; patient yet decided. He should never be deceived and should never be promised anything, either good or evil, that is not furnished or inflicted. In other words, he should learn to know that he has a master and that his master is kind, and that whatever is required will

be hunting. The little girl's parents were of an orderly type, strong in character, but calm and wise in its manifestation, and this was the only child. It never had much baby talk, fortunately, and therefore its conversation was distinct and calm. The words were not clipped nor jumbled. The middle of the forehead was very full, showing fine memory, and the



FIG. 205.—TALENT, POSITIVENESS, POWER AND PUSH.

have to be done, first or last. With other children, he is likely to be severe and rough. He will be impatient, not of the load and labor, but mainly of restraint. He will be happy when he has big things to play with and can make plenty of noise, but his happiness will be of a strong and intense type. He is a natural engineer, a natural physician and surgeon, a natural mechanic and a thinker and talker.

Fig. 206. This is perhaps as sharply a defined contrast to the preceding as could be found in a year's

forehead as a whole was well balanced, although the perceptive and historic faculties were the stronger.

But what an amiable face! How little of severity and acrimony it contains! The signs of vitality, digestion and breathing power, shown in the fullness of the cheek, were manifestations of harmony of constitution as well as health. She would sit at the table with adults and eat in silence, and when she wanted anything she would ask for it patiently and politely and in becoming tones. She did not whine nor screech, nor scold nor mani-

fest petulance. She seemed to suppose that whatever was right and proper she would have in good time, and she behaved at the table like a little woman. It was owing to two facts: First, a harmonious and healthy constitution, and, second, a consistent



FIG. 206.—CALMNESS, HEALTH AND TALENT.

and wise method of treatment. Those who had her to deal with did not snap at or insult her. This child would play by the hour with such things as she had and seem to be as earnest and full of interest as these noisy ones are who are loaded with all the new playthings. I never saw a more equable child, and one would have to look a long time to find one who was more intelligent and more ripe in judgment for the age. She had perfect health and was robust and hearty in her efforts, had zeal for enjoyment, but was orderly; was not one of the puny, tender, angelic sort; was wonderfully human and especially humane, consistent and decent. A person could bring up three or four of such children as this with less friction, worryment, struggle and labor than would be required to manage one like Fig. 205, and there would be as much talent and character, only not so imperious, hasty and rampant.

Fig. 207 is taken of a child two and a half years old and it has a remarkably well balanced face and head.

Health and harmony of organization are written all over the expression. The element of nutrition is abundantly indicated; the growth harmonious and abundant. The middle of the forehead is very prominent, indicating an excellent memory.

The upper part of the forehead is massive, showing reasoning power and ability to understand the lessons of life, in school and out of school. She has a brilliant but calm eye; it is soft and gracious. The top-head is well rounded, showing strong moral sentiments, and Faith that believes and confides. She has large Conscientiousness and Firmness. There is a steady and uniform drift of life, feeling and purpose. She will be a fine scholar and a leader among those who are good, amiable and gracious.

The organs in the side-head are strong enough to give prudence, policy, economy and force of character, but there is not an element about her that is rough, impetuous or imperious.



FIG. 207.—AMIALE AND INTELLIGENT.

People will consult her to know what she would like, and, if consistent, adapt themselves to her wishes; and through life she will be a central figure in the society in which she moves, and every well-meaning person will be glad of her friendship and will be anxious to please her.

Fig. 207. Here is a black-eyed, nervous, sensitive, intense, eager, excitable, mature little girl. Her head

is large for her body and for her age. She is in a hurry to know and eager to see and experience. She will, if permitted, devour books and perhaps stand at the head of her class and wear herself out in excitability and

it brilliant things and make a parade to attract its attention. Its attention is too intense anyway. Some women would raise that child and make it a healthy, substantial woman, but perhaps three out of four would



FIG. 208.—SENSITIVE, INTENSE, EAGER, EXCITABLE.

intensity of life. Careful feeding is requisite for all children, but she should not be fed on food that produces an extra amount of heat, such as sweets and starch in the shape of cake or candy. Some of the late modern preparations of food for children are supposed to be excellent, but if children are left to the tender mercies of people who are fond of their children and yet not well informed as to physiology and hygiene, they are so trained and fed as to secure early their passports to a brighter life.

A nurse for such a child as this should be plump, calm, patient and kindly. She should never be in a hurry, never tease the child or show

handle it so as to break its health and nervous system and culminate its life inside of seven years. The child has large Caution, and should not be told frightful stories or threatened with dangerous results. It is likely to be precocious, nervous, scholarly, high-tempered, eager, ambitious, witty, brilliant, honest, firm and impetuous.

I heard a woman, within six months, who was riding on the ferryboat, say to her little child, less than two years old, "Hush up, or I will throw you overboard." Threats should be restrained. Nothing should be promised or threatened to any child that is not reasonable and right to be fulfilled.

CHAPTER XXX
HOPEFUL CANDIDATES.

FIGS. 209, 210. This child appears to be remarkably healthy and to have a sound, substantial constitution. His head, measuring twenty-one and a half inches in circumfer-

years old. He has the mental temperament in a pretty large degree, because his head is large for his weight and age. He appears to have a full share of the motive tempera-



FIG. 209. D. J. SAYLER, SCHOLAR, THINKER, LEADER.

ence, is large enough for a man whose weight is 140 pounds, and this child weighs forty-five pounds and stands 3 ft. 5½ in. high. He is less than five

ment, because he is rather tall, showing a good bony structure, and the vital temperament appears to be well represented, because he is plump and

he appears to have good digestion and good breathing power and not poor circulation. With a head so large for his weight and age he ought to be trained carefully in every way, especially physically. Means should be adopted to have him sleep all he needs to sleep. He ought to have a nap during the day, if convenient, and then he ought to retire early, so as to have time to sleep ten or twelve hours in the twenty-four, and he should do so for three or four years. Children like him, with so large a head, need more sleep than those whose heads are smaller, because sleep was ordained merely to rest the brain and the nervous system. Noth-

culprits, by compelling them to remain awake until they die, and the thirteenth or fourteenth day generally finishes the strongest of them, but a man can live three times thirteen days without food and recover.

This child is a great observer, but not so much of mere physical phenomena as he is of causes, reasons and consequences. He asks questions about truth; he asks why this or that is so, and is not satisfied unless he can have a sound and substantial reason. He will make a good scholar if he has a good opportunity, and especially a scholar in the ranges of thought embodying meditation, philosophy, theory, principle and



FIG. 210. D. J. SAYLER, STRONGLY SOCIAL.

ing else does it, and a person can live longer without food than he can without sleep. In China they inflict capital punishment on certain grades of

idea. He will take the higher forms of investigation; he will not be merely an observer of phenomena and data, but he will always be anxious to trace

statistics onward and backward so as to get the beginning and the end—the full history of the fact. He has a very fertile imagination. He thinks far ahead and asks strange and mature questions for one of his age, and if he were trained in religious themes and theories his imagination would magnify and project statements made to him so that he would have worlds of questions to ask about the future state; where the locality is, what its measures and bounds, its laws and usages, and he might ask, "Who is there, and what are they doing?" He has uncommonly large spirituality and veneration, shown by ample arching of the central top-head, which give him a credulous and reverential spirit; he is willing to believe anything that is not palpably erroneous or false, and his large veneration leads him to recognize and respect the excellent and elevated. He will always respect the high, the honorable and the distinguished, and he will incline to be devotional in a religious sense. He has imitation enough to copy and conform and adapt himself to usage. He seeks to do that which his seniors do, and he thinks he knows what he will do when he is a big man. His hope leads him to expect all that he needs and approves. He is not one who will look on the dark side of the future, even though everything is going against him. He has talent for mechanical invention, and, with his large Ideality and Spirituality, he will always be trying to develop something that is remarkable. He would see enough of a World's Fair, if he had a chance, to remember it as long as he lives, and for a person of his age, he will try to know more about invention and machinery, and its operations, than others. He will have a taste for art and for mechanism, and a relish for poetry and the higher forms of literature. He will study human nature and understand strangers, and he appreciates the peculiarities of people. The middle section of his head is

well developed, and that being rather broad, he has the love of life; he has executive force and the tendency to be brave and thorough. He will manifest a good degree of appetite; he relishes food, and it will be rather easy to build him up in physical strength and vitality. He is not going to be puny and pining, but, on the other hand, he will be hearty and zealous. He has rather large Destructiveness, and therefore he feels strong to do whatever is needful and desirable. He is secretive and will be able to conceal his thoughts and guard his expressions so as not to be indiscreet in his words. He will not be inclined, as he advances in life, to let people know his plans and his purposes until he gets them beyond peradventure. When he has "struck oil" on any line of prosperity and success which is palpable, he will not try to conceal it, but he may not tell how much he is making, because that would open the door for people who always have on hand some "cause" or chronic charity to foster and desire help. He has prudence and caution and good sense enough to desire to avoid advertising that he has money to give away, hence he is not likely to be ostentatious in his gifts, partly because it is in poor taste and partly because he would not want to advertise himself as a factor of charity, and thus invite the throng of charity hunters.

His head in the back part seems to be long and narrow and decidedly large. The social elements are very strong and he will be fond of pets and inclined to foster whatever is petable. If there was a baby which he could patronize and play with and be the leader of, he would feel that he had an important charge and responsibility. He has a protective spirit and is benevolent and desirous of having something that he can pet, protect, assist and guide. Some boys are a good deal more fond of governing others than he is. He will be loving and affectionate and inclined to

protect others rather than to lord it over them. He will be a guide rather than an overseer, and he will generally be a leader because he has a large brain, an active imagination and plenty of ingenuity, and also the disposition to see ahead and know all that can be known about matters and things. He is a good friend, is companionable, social, loving; is fond of home and home associations. His Continuity is not as large as we would like to see it, and hence he is liable to get tired of a thing and drop it and want something else that is fresh and new. Some children will take six or eight blocks and play with them for a year; they always seem to find the blocks new and useful and will build almost anything out of them, but this boy would like to have a full-rigged locomotive, and if he lived near a fountain or a stream he would want a boat which he could sail and have a string attached to it so that he could haul it in or let it out before the wind as he wished. If he could have a wind-mill that would turn, it would gratify his ingenuity and he would like that; will always be full of resources and will make a good scholar. While he is loving and affectionate, he is rather high-tempered; will not seek quarrels nor seek to lord it over others. He will know more than most other children do if nothing happens to check his mental growth or destroy his health, but he will be a counsellor, an advisor and a leader rather than a driver. He is remarkable for his strength of affection, his tender sympathy, his moral and religious tendencies, his reasoning powers, his imagination and also for his great force of character.

This boy ought to be dressed warmly about feet and legs, and if he were my boy he never should wear knickerbockers according to the present plan, especially in the winter time. I would give him long trousers and the old-fashioned boot to wear, which would come half or two-thirds of the way up to the knee, and the

boot-leg being loose around the ankle would give a space for the warm air to circulate and thus keep the legs and feet warm, which would tend to induce a free circulation of the blood throughout the entire body. Fifty years ago all men wore boots, and little boys, five years old, would get boots with red tops as a Christmas present and were very proud of them. This wearing of the knickerbocker rig in cold weather prevents boys and men from becoming as tall as they otherwise would be, and besides it brings on many diseases and disturbs the system because the blood is checked in its circulation to the feet and back again, and if the blood cannot go to the feet it will go where it can go easiest, namely, to the brain, the liver, the kidneys and the stomach, congesting these and putting them out of order. The laced shoes, being tight around the ankle, allows zero to come within an eighth of an inch of the skin, and that produces congestion at the ankle, where there is but little flesh to cover the blood vessels. I had a boy under my hands once who was twelve years old, had a twenty-two-inch head and weighed seventy pounds. His mother brought him to me in November when the weather was raw and cold, and below the knee he had on nothing but thin merino stockings with no drawers under them, and when I grasped his leg it felt cold to my hand, but he had a fur cap on his head and he wore a fur-trimmed overcoat which came down to his knees. I advised the mother to lengthen out his drawers, to get him good, warm stockings instead of the thin merino ones and then to get him boots to wear instead of the tightly laced shoes. In order to make it look all right I told her she could get thick, beaver cloth and have some leggings made which could be sewed on to the pants and so make long trousers of them, and she promised to do just as I said. In about five months' time, namely, about

the first of April, she brought the boy back again just to show him, and he had gained seven pounds in weight during that time; one tenth of his whole weight had been added, and he had so far recovered in health that he was able to go to school every day in the week, whereas before that he was only able to go one day, and he had even commenced to play leap-frog and other games with the boys and was full of joy and enthusiasm, and the mother said she thought we had saved her boy for her and that we might have saved his two older brothers who went to the grave just as this one seemed to be going, if she had only brought them to us in time.

If this were my boy I would let him grow up without eating candy, cake, fine flour and extra rich food. He should eat oatmeal and milk, he should have the entire wheat for his bread, what is called graham bread, and he might eat lean beef, mutton, fish, eggs, and poultry that is not too fat. He may eat the common vegetables and ripe fruit freely.

This boy will make a fine scholar and will incline to literature and science, especially in medicine. He might be distinguished in law and he would be likely to take a good place in general literature, and if he has the proper education he will be able to shine in speaking and in writing. If he were placed in such a way as to come in contact with mechanism and engineering he would be likely to show talent in that direction.

Fig. 211. This boy is a year old. His head measures 18 in. in circumference and from ear to ear over the top it measures $11\frac{3}{4}$ in., which shows a large head for his twenty-two pounds of weight. He has an earnest disposition; is intent upon the accomplishment of what he has occasion to do and knows what he desires. He has a definite understanding of his wishes and purposes, and he will learn to be an excellent scholar. He has a remarkable memory of facts, places,

and ideas. He will be polite, he will be agreeable, he will understand character, and while he is earnest he will also show wit, but he will not be a trifle. He will be brilliant, witty, and refined, but he will be earnest and strong. Mechanism is one of his marks, desire for property is another,



FIG. 211. R. K. L. MEDICINE OR BUSINESS.

and if he could have a good medical education it would doubtless be as good a field as he could occupy. He has talent for the study of anatomy and would be expert as a surgeon. There is so much to learn there and his memory is such that he would retain it all. He will have the courage of his convictions, and will be watchful, prudent, painstaking, upright, dignified and inclined to be his own master and he will not always be leaning upon somebody who will undertake to sustain him. He will learn rapidly and will have an idea as to how things ought to be and he will not long accept wrong teaching as sound and valid; he will reform the methods if they are not right.

Fig. 212. This girl is twelve and a half years old, rather older than we invite for this department. She seems fairly well grown and has rather a large head, although the weight of the person is not given. She has artistic talent and is capable

of being a good scholar in the higher branches of learning. She is strong. She has good vitality and is decidedly



FIG. 212. E. P.—SCHOLAR AND TEACHER.

intellectual. She can comprehend the principles involved in studies or in business and will be a keen critic of the facts of life and surrounding circumstances, and especially a good critic of human character. The upper part of the center of the forehead, where the hair begins, or a little below where the hair begins is the location of the organ which gives the instinct in regard to human nature. She will make a good teacher and would do well in business. She has a fair sense of value and inclines to be economical rather than avaricious. Her Benevolence is large. The upper part of the front head is high, hence she is generous and self-sacrificing, and willing to give an ample equivalent for valuable results. She is firm, honest, respectful, ambitious, proud-spirited and inclined

to persist in her studies and in her work and finish what she begins. There is good distance from the opening of the ear backward; the back-head being fully developed, indicates strong affection, ardent love and regard for home, children and friends. She is ambitious about the world's good opinion, and her intellect will be the cutting edge of her success. She will get knowledge and be well informed; can talk her thoughts and impress her wish and her will clearly. She will deserve success and be willing to work that she may secure it.

Figs. 213, 214. This three-year old boy has a plump and amply sustained system. He is healthy, fat, warm-blooded, hearty and hungry pretty often. His head is broad at the base, hence he has wonderful force. With his Vital Temperament he makes steam fast enough for a high-pressure engine. He is combative and severe when provoked. He is ardent in his love. The back-head is heavy. He is fond of his friends, fond of pets, but a little apt to be harsh and rough with them. His horse, his dog and his nanny-goat, and his playmates also, will have to obey him, or at least he will think so and incline to take measures to secure obedience; but he does not like to be roughly handled himself. This boy ought to be fed on plain diet, namely, on milk, grain products, vegetables and fruits mainly. He should not be loaded with sugar, for that is the bane of this age. Sunday-school picnics are attractive because they have bushels of cake and candy; and the next day they have more fever, fretfulness, headache and stomach-ache than people generally attribute to cake and candy; and the mothers say, "The dear things were so happy at the picnic that they over-worked and are not well to-day."

This boy should be kept on plain food, and have ample exercise in the open air and have plenty of time to sleep. He should be permitted to have liberty—large liberty in his play,

because he must make a noise, lift heavy things and carry on a big business. He is not one of the persons who will stand over a counter and sell pins, buttons, tape and other knick-knacks. He would do better

"the laws of the Medes and the Persians," finished and settled when once uttered, and crying and teasing should not be permitted to win a victory for him. If any unjust requirement is made of him, and it seems to



FIG. 213. G. L. N. HEADSTRONG, POSITIVE AND PLUCKY.

in a big manufactory, where iron is made by the ton, where cars are builded or where they are used in actual service, or he would do well as a contractor about a city doing large work. He will make a man with boots on; he will not go through the world with dancing slippers on. There is nothing dainty, delicate or little about his ways, his works and his thoughts. He has a capital memory and good judgment. He has mechanical ingenuity, also large Acquisitiveness, and he will make money somewhere and he will be willing to earn it. He will always want to work by the piece if he works at hand work, or he will want to take a contract and boss the job. But those who deal with him ought to be calm, patient and consistent, and if it is necessary to deny him anything it should be like

be apparent so that he will know it, it should be retracted and apologized for, and then he will understand that if his superior should make a mistake it will be rectified, and if anything is said, not being a mistake, it must not be modified or changed. I would not advise a loud, harsh voice in his training, and I would not talk to him while he was crying. I would wait until he stopped and then reason with him and show him why it is not right that he should carry his point, and why the injunction or requirement is reasonable and proper to be given and to be submitted to. He has brain enough to understand if he is only treated with calmness, consistency and persistency, but he ought to be taught, to start with, that justice and kindness rule, and that kicking and crying will not dethrone justice. We

will not say that one or two wisely applied corporal punishments in his early time might not be a means of grace to him. A child who has as much vitality and physique as he has can sometimes be appealed to with

his social affections. If the father or mother would say, "You do not want us to feel sad and sorry because you are naughty, as we always must, do you? You want us to love you, and therefore you ought to do that which



FIG. 214. G. L. N. "A WHOLE TEAM."

blows, calmly but thoroughly applied, more effectually, or at least more readily, than by reasoning. We notice that when kittens become obstreperous the mother cat sometimes gives them a cuff with her paw and they come to terms and seem to consider it all right, and while most children could be better trained without corporal punishment, some kind of penalty should always be understood to be the consequence of persistent disobedience. For instance, the denial of some pleasure to-morrow, or some other time, so that the child will find out that the "way of the transgressor" is made hard for him, and that therefore he brings down the punishment on his own head, and then the throne of justice will be glorious. This boy can also be trained by an appeal to

will make you lovely and not be contrary, cross, selfish and headstrong." And whatever happens he should not be pacified when he is wrangling and crying in anger, by being submitted to. When he commenced to cry and storm I would send him into another room and say, "Now you may stay there until you get through crying and until you can be a good boy, and when you think you can be good you may rap with your knuckles on the door and then we will see about it." He has his mother's intellect and his mother's affections, but the middle section of the head, from the ear over the top, is like the father. He has the feminine thinking and loving faculties and the masculine executive faculties, hence is frequently quite unlike in his mode of feeling and action.

CHAPTER XXXI.

BABY'S DAY IN A PICTURE GALLERY. *

FIG. 215. No. 1 has a tough, wiry, enduring constitution, and will be frank, independent and self-reliant.

No. 2 has a broad head. Full of fire and force, policy, prudence, tact and management. Fond of property, ingenious, excitable and of mental temperament.

No. 3 is not very cautious; is independent, frank and enduring.

No. 4 is hardy, strong, intelligent, open-hearted, proud-spirited and firm.

No. 5 has a very sensitive, excitable nature. Not constituted for the rough, hard usages of life. Is quick, brilliant and sensitive.

No. 6 has small Secretiveness and Acquisitiveness. Is open-hearted, frank, conscientious, ambitious and positive.

No. 7 has a good constitution, is likely to be large, healthy and handsome. The dark complexion gives power and endurance. Has a good memory, economy, policy, force, enterprise and self-reliance. Will make a good scholar and teacher.

No. 8. This child is as bright as a diamond. Eager, excitable, will be a good scholar and a good worker. Will be ingenious and smart as steel, and though not hardy and tough, has the sign of long life.

No. 9 looks like a judge; wise, thoughtful, sensible, scholarly, ingenious, firm, ambitious and inclined to lead.

No. 10 will enjoy this life and be in no hurry to leave it. Has an enduring constitution, is not over careful and anxious and is inclined to be

frank and to speak right straight onward as it thinks and feels.

No. 11. This is an excitable child. Its ginger has a little pepper in it; will be quick-tempered, brilliant, ingenious, forcible, watchful and faithful.

No. 12. Here is intelligence, memory, reasoning power, wit, artistic taste, but not much love for money and not much inclined to defend self. Will be amiable, prudent and very intelligent.

No. 13 is firm, respectful, frank, liberal, sympathetical, with a memory that holds everything that touches it.

No. 14. Dark-complexioned, enduring, bright, excitable and quick in motion.

No. 15. Intellectual, ingenious, imitative, witty, sociable, self-reliant, but not very selfish.

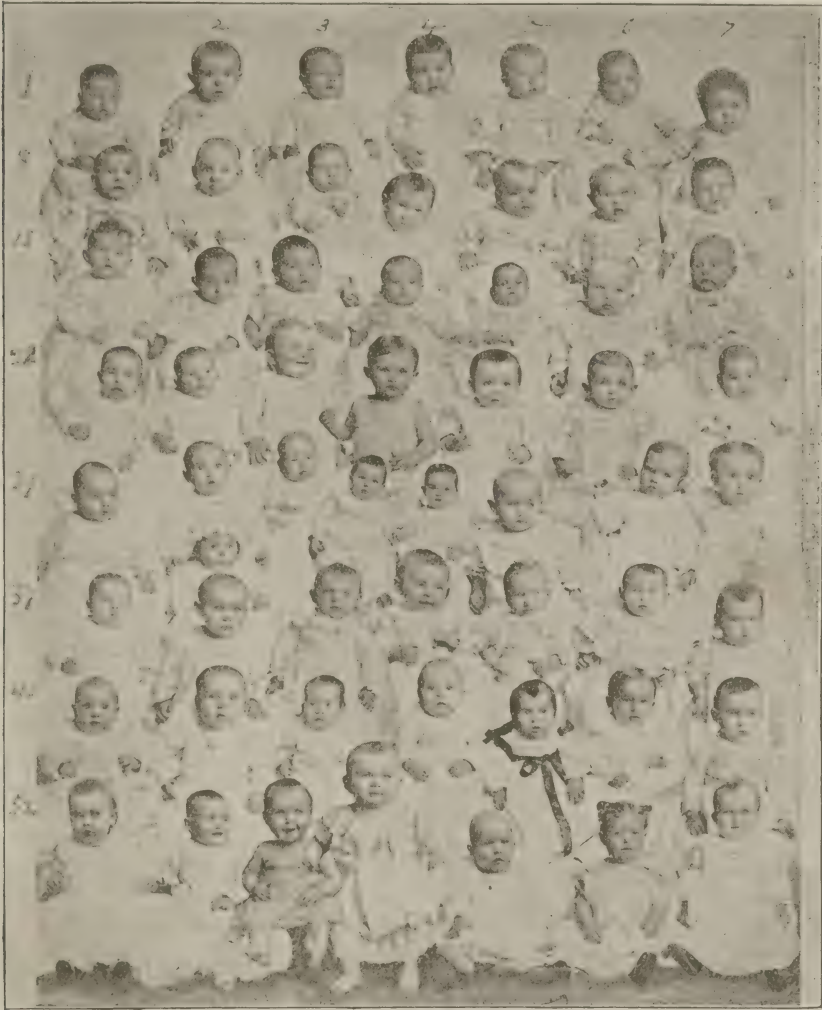
No. 16. Not precocious; will be a good scholar. Will remember what is done and be able to recall it and tell it. Not very strong in appetite. Rather a large head for the face and will be inclined to anxiety but not to fear. Will be in a hurry to get there and accomplish that which needs to be done.

No. 17. A predominant Vital temperament. Will be healthy if rightly fed. Has a good memory. Will be

*Our friend, De L. Sackett, of Harvard, Ill., who is a graduate of the American Institute of Phrenology in New York, class of '89, and who is also a leader in photographic art, has kindly sent a group of fifty-eight buds of beauty and immortality for our Child Culture Department, which he took separately with his own hands in one day, September 20, 1894—which he calls "Baby's Day." They were taken singly of the usual size. Proofs of these were carefully arranged, and a reduced copy made, as here presented. Each child was less than a year old.

a good scholar, fond of traveling and inclined to have its own way. Not extra cautious and not very selfish in money matters; not severe in temper, but more headstrong and positive.

No. 19. We think this child is about two months old. Its dark complexion will make it enduring and tough. The head is rather narrow, and high for its width and will be



FIGS. 215 TO 272. "BABY'S DAY."—GROUP OF FIFTY-EIGHT.

No. 18. This little fellow is wide-awake. Will be fairly ingenious, not very selfish in property matters, ought to be so related to business affairs as not to have much complication in money matters, and probably will do as well on a salary as any way.

more intellectual and self-reliant than selfish, and more inclined to scholarship and government than to mechanism or merchandising.

No. 20. This is a Vital, Mental temperament. A thinker and a sound one and is a well balanced head.

Ought not to be hurried in anything. Ought not to be shown brilliant pictures, brilliant toys and exciting sports. Let that child pretty much alone and it will amuse itself, if it has three blocks and a stick. It will devise ways and means of information and entertainment. Will make a good scholar, a worthy citizen and will probably live to be eighty years old.

No. 21. This child has the Motive temperament with a good share of the Vital. will be tough and enduring. Will have a good appetite and good lung power, will be excitable when provoked because there is pride, ambition, determination and not a great deal of restraining power. Secretiveness is not large enough to enable it to cover up its purposes and hold the fire burning and smothering within when it is not pleasant or profitable to let it out. This child will be intellectual, scholarly and independent, but perhaps not very successful in financiering and making bargains.

No. 22 has a fairly balanced head; there are not many extremes in this child. There is a clear-cut Mental and Motive temperament; there will be endurance, hardihood, determination, thoroughness and clearness of intellect, and also a positive will.

No. 23. This is a delicate, refined, polite, gracious and influential person, not much given to appetite. There will be refinement and artistic taste, but not so much power to grasp duty and effort and make itself master of the situation.

No. 24. Here we find a child that must be very nearly a year old. One of the healthiest, heartiest, and most vigorous and vital persons that we meet. Will enjoy life, not because it is laughing now, but because the temperament and constitution are such as to make it take life on its sunny side. It will want all out of doors for breathing room, and there will be no pulmonary difficulty in that house on its account. Then the fullness of the cheek outward from the mouth indicates that there ought to

be a provision market not far off. The form of the head is interesting. Across the eyebrows the forehead is prominent, and all the facts that are within reach of the eyes or the telephone will be nutrition for it, but the upper part of the forehead is not so large. No. 20 has a very differently formed forehead; is the philosopher and thinker, and this one is the observer and talker; will see everything, and have a jolly something to say about it. See how high the head rises at the crown! That child will always feel "I am here; the place is not lonesome." We find here independence, self-reliance, determination and will power that stand up for its own rights and interests, and for the interests of its friends. The faculty of Cautiousness is rather small, and there will be a tendency to rashness; will take chances, run into danger and difficulty, but will work through it and over it. The temperaments of the parents of that child were so developed as to give us a specimen of health such as we rarely meet with. There is business talent and love for property, there is energy and a high temper when excited.

No. 25. This child is delicate, sensitive and thoughtful. Will be scholarly and manifest policy, smoothness and prudence, and a good degree of integrity. This is a well-balanced head and face, and it is quite possible its friends may think it handsome, an opinion which probably will not be cured by time, that is, in twenty-five years.

No. 26 is of the Mental type; excitable, sensible, ingenious, economical, prudent, honest, witty and agreeable when not provoked, but inclined to sting with sharp words when provoked.

No. 27 is younger than some of the children in the group, but it is a wiry organization, and will endure about as much accident and abuse as falls to the lot of mankind, and will manage to come through, if not un-

scathed, at least unconquered. That child will be active; not as quick as a cat, for that is rather a high standard, but people will use that phrase in respect to it. Will be a nimble worker, a rapid talker, and will stop when it gets through. It has a good memory, considerable taste and refinement, is frank, self-reliant, will earn success and deserve it.

No. 28. This child is different from all who precede it. It has a very delicate temperament, a white skin, a fine quality, and is not tough and enduring. The head is narrow and high. Compare this face and the form of this head with No. 7, 20 or 26. This child will be the soul of frankness. Will make straight lines, will understand the Multiplication Table and the Ten Commandments, and incline to square everything by the rule of equity. Conscientiousness, Firmness, Veneration, Benevolence and Spirituality are large, but the selfish propensities, located along the side-head, and which, when large give breadth to the head, are not strongly developed. In this child there is a good deal of St. John, as we read his character—peaceful, gentle and unselfish.

No. 29. If the reader can take a magnifying glass and throw a strong light on this child's face and head it will be noticed that forward of where the hair covers it the head is rounded out. In the middle and lower part of the forehead it is exceedingly full. This child will see everything there is to be seen and remember it. Will remember places and never get turned around. Will be good in figures, good in music, and good in mechanism. Is a natural imitator and will learn to do anything it sees done. Is not very strong in Acquisitiveness, Secretiveness or Destructiveness, but is strong in Self Esteem, Firmness and Approbativeness. Will be ambitious, but not selfish, and will be intellectual, scholarly and philosophical.

No. 30. When this picture was

taken the child's attention was awakened by something that produced astonishment. The eyes are broadly open, and the perceptive intellect being active and excited it makes a bright, intelligent but rather an astonished looking countenance. The mouth is slightly open, but older people sometimes open the mouth when astonished. This will be a bright scholar, industrious, sprightly and rather excitable in the way of anger and pleasure, because the temperament is favorable to excitability, just as kindling wood burns faster than a couple of big sticks.

No. 31 has a narrow head, it is flattened on the sides. There is very little policy or greed for gain and not much mechanical ingenuity.

No. 32. We venture to call him a boy. He believes in himself. He is clear-headed and quick to see and to know. He will be quick witted, have a good memory and a straightforward, confidential method of dealing with people whom he likes.

No. 33. This child has also dark hair and a predominance of the motive temperament. They look nearly enough alike to be twins and yet twins sometimes show the blonde and brunette type in marked contrast like the parents. This child should not be hurried in his acquisition of knowledge nor should he be excited. He will not need prompting and exciting to awaken his attention and interest.

No. 34. Here is a well-balanced face and head. The light complexion, and especially the light blue eye, would indicate refinement and intellectuality and sprightliness rather than toughness, hardihood and endurance. The head seems to be large, and I suppose the parents of this child were educated, that their minds were active and that the child is rather old of its age. Intellectually it has breadth, scope and intensity; a good memory, thinking power, Conscientiousness, Firmness, self-reliance, decidedly strong prudence, with a good degree of economy.

No. 35. This shows the mental, motive temperament. A very positive nature, knows what it wants and will go for it. Not satisfied to wait for somebody's opinion to ripen and give permission for that which might be desired. Would incline to go forward and try experiments, take its rights and use them. Will be ambitious, honest, straightforward, sprightly and well balanced in intellect.

No. 36 has a head wide at the top, and shaped like that of Fig. 193 on page 237, which we call "The Student." If this child can be so kept back that it will not become feverish in the brain and nervous system, and can be permitted to learn by observation and not by direct and earnest instruction, it will learn as much as it ought to know and as fast as it ought to learn. This is one of the kind who is apt to be precocious and know too much for its age and so induce nervous excitability that will prostrate its health and shorten its career; but such a brain as that, or such a mind as inhabits that brain, will have a career somewhere, even if the first session is short. We mean that if this child is treated by half a dozen cousins and aunts with loving enthusiasm and talked at, questioned and made old before its time it may early wear out, and if pampered on rich food and permitted to be eating half the time during the day, it will have dyspepsia and become nervous and quite unsettled, but if it can have simple food and is permitted to eat only three times a day it will have appetite enough. This child should neither go to school very early nor have all the picture books and playthings that often surround childhood. Its head is shaped too much like that of Edgar Allen Poe. It is wide at the top and there is a wonderful development of the reasoning and the planning powers, great imagination, poetic fancy and Spirituality. There is too much Caution here to enable the child to live comfortably in such

a world as this and the terrors of darkness and danger should never be talked about in its presence. The moral and religious organs are strongly developed, but the head is not broad enough through the ears for the upper development. There is not a brighter child in this group, but there are many who have more of the elements of healthy endurance, hardihood and the ability to grapple successfully with the rough achievements of life.

No. 37 is a young candidate for fame and for fortune and has a fair degree of harmony with more stability than force. It will not be a very hard child to manage.

No. 38. The little face serves as an outlook for the one below it. A brilliant little girl, sensitive, not very enduring and liable to be precocious. means for exciting this child should be avoided as much as possible.

No. 39 has a substantial organization but is very combative, and I am surprised not to see the hand clinched. This child will not need a big brother to go to school with for the sake of protection. Boy or girl, this child will fight its own battles. It will keep its own counsel although it has a wide open eye which is induced by skillful treatment in the artist's gallery, and it must be remembered that it takes no small amount of skill to interest children and get a pleasant look in the pictures. This child is fond of property, fond of mechanism, fond of mirth, has an excellent memory and good reasoning power and will make a good scholar. Will be firm, ambitious, hopeful and will begin to hustle pretty early in life. If the funds are short and scarce this candidate for success will try some means to secure it. He will be ingenious and a great worker.

No. 40. This is a tough child. It will recover from illness and injury, will pick itself up when it falls and while the tears evoked by pain may still be shining, it will smile through them in pursuit of the fun that is still

to be achieved. There is a good deal of ready common sense, will take advantage of circumstances in its methods of playing. If it cannot climb high enough to reach something from a chair it will get a hassock and put that on top and manage not to fall, will balance itself on its own center and entertain itself. Half a dozen blocks and as many corn-cobs will be tools enough to keep its mind satisfied.

No. 41 is a calculator and will manage to plan in such a way that somebody else will do the drudgery while this one holds the purse strings or the net to catch the fish. In all plays and games there will be no lack of a manager to run affairs according to schedule or usage. Here is prudence and policy, intelligence and ingenuity, Imitation and Agreeableness. This child can persuade others by Agreeableness and command them by Self-esteem and Combativeness; will run its own machine and want to call something its own, and if it lived on a farm there would be one calf, chicken, pig or kitten that would be claimed and petted. The sense of ownership is strong.

No. 42 has a narrow head, broadest at the base and running up rather high. When people begin to use subterfuge, deception and jokes that are concealed, this child will look in amazement at the whole business. It will call a spade, a *spade*, and it will call black, *black* and not use indirect phraseology. It will use the word *hard* for firm or indurated, and if it becomes a writer people will know what it is talking about. There will be a straight line from premise to conclusion. We find here abruptness, lack of policy and sometimes a lack of prudence but no lack of integrity and no lack of determination and self-reliance. Its memory will not forget and when it tells anecdotes will be right as to time, place and circumstances, and if it ever should be tempted to tell a lie it would be open, manifest and straightforward. This

child will be a good scholar and an influential citizen, but will always be as straight as a line.

No. 43 is a different type. Refined, delicate, somewhat immature. Head rather broad than high. Will use policy and indirect methods of reaching results; will be ingenious, imitative and not very devout, but rather strongly inclined to take care of number one. Napoleon said, "Providence is on the side of the heaviest cannon," and this child will believe in the means within his own reach, and not cry for mother or sister to help until personal means have been exhausted.

No. 44 is very different from No. 36 and No. 43. This head is high at the crown, and rather narrow. There is but little prudence, very little policy and about as headstrong a spirit as can be found. Conscientiousness is well developed, but the lines of its life will be so straightly drawn as to be unaccommodating. Compromise will not belong to its career. It will regard compromise as fraud or cowardice, or a cross between the two, as it frequently is.

No. 45 has a round head. Especially brilliant in memory and observation, and will be a good linguist; a good literary scholar and have a fair development of morality and a strong sense of "me and mine;" will be an ardent lover and a good contender for the achievement of rights and interests. This person will buy more with five dollars than most persons would be able to get. When these brilliant blue eyes look tenderly and anxiously upon a person who wants to sell goods, there will be a disposition to accommodate the price to the wishes of the buyer, and this person would also make a fine salesman.

No. 46 is going to be a large, strong, substantial person. The temperament is favorable to endurance, being rather dark. The breadth of the head is ample for its height, and its vital system is sufficient to sustain the brain and the framework

in the labors of life. There will be massiveness, endurance and toughness and great vital recuperation. As a scholar the child will not be as brilliant as sound and broad; should not have a snappy, impatient teacher, but one who will calmly and accurately explain subjects and the pupil will take it all in, digest it and make the most of it. He will make a good lawyer, a good minister, a good speaker and sound thinker.

No. 47. Here is a small, delicate child with a narrow head and the ears pretty high up. It is sensitive and should not be rudely or unwisely treated or managed. Should be warmly clad in cold weather, carefully and properly fed, and if treated wisely, may weather the struggle of existence to mid-life.

No. 48 has a different head. See how broad it is above and about the ears and how low down the ears are. This child will live in spite of much misfortune; will conquer the diseases incident to childhood and get over a hard cold. Contrast this head with No. 28 and compare it with Nos. 7 and 24! Here we have the mechanic, the trader, the hard worker and the defender of self-interests. There is not a great deal of Caution—there is more force than prudence and if it ever gets into a fight it will not mind being hurt some, but let No. 47 or No. 28 be assailed they will offer compromises of peace. If this child were left an orphan it would find a home, earn a living, make friends and rise to distinction in spite of misfortune, and when it is old enough to dicker with knives, tops or other childish property, it will make money out of the school children. It will buy a knife and find that it cuts well, and on the strength of the fact that some knives, on trial, do not cut well, will double its money.

No. 49. This dark-haired, bright-eyed, plump little candidate for fame and fortune will work its own passage; will be high-tempered and

when crossed or the gate is shut in its face it will jump like india rubber for redress. People will learn to conciliate this child; to lead rather than drive it; to persuade its judgment and taste rather than to contravene by authority. Memory is one of the marks of progress and success. Criticism is another, and knowledge of character is another. This child will read strangers; will like some and dislike others, young as it is.

No. 50 is a harmonious child. Every feature of the face seems to be well developed and it does not take much imagination to see eighteen years in that youngster, and it is likely that some of its relatives will think it handsome hereafter. The hair is combed like a boy. He will want to dress in style, and he will have taste as to what style is. He will be clean to a fault and exact in reference to the proprieties of life. Will make a fine scholar, a good reasoner and speaker. Has a fertile imagination and faith enough to accept whatever is generally believed, especially in matters pertaining to faith. The child behind is pointing with its finger at the region of Ideality and Spirituality in this head, which is full in that region. This child will be wonderfully teachable and the best scholar in the school if its health can be properly cared for.

No. 51 has a good head and especially an intellectual head. The elements of reverence, faith and sympathy are not quite as strong as in Nos. 50 and 36, and decorum will be its mode of manifestation. It has enough of the selfish elements to be mindful of its own rights and interests, and will have courage enough to defend them. It should be trained in the physical methods to develop bodily vigor and have sleep enough to rest the brain. About half of the children thus far discussed on this group require an extra amount of sleep. There are a few here who will not take a great deal and who will not need two-thirds as much as the rest.

No. 52 attracts attention from the extreme fullness of the middle part of the forehead and that means historical memory; the ability to snatch the truth before it is fairly ripened and to remember it forever. This child wants to hear stories and will listen to the reading or conversation as soon as it can grasp them. It will be a thinker; is old of its age although its physiognomy is not ripened like Nos. 24, 50 and 7, but when this child is twenty-five years old that nose will have gotten into shape, the lips into something besides infantile form and the general constitution will be ripened and rounded into 150 or 160 pounds and his word will be law. The child will be a kind of master in its Israel. It is a little like a winter apple; it will ripen as time advances.

No. 53. This child will be the talker of the party. The words will flow like oil and pleasantly. Here is large Approbativeness which will give a tendency to flatter people and to say agreeable things in a very oily and honeyfied manner. This child will be popular, the leading star of the party, but not the most intellectual and not the most logical. No. 46, right over its head will weigh the logical topics and sit in judgment on the matters which are strong and weighty. This one will tell a funny story, will make bright common conversation and will be the one to talk to a bashful boy who has not been much in society and has small Language. This child has large Language, the eye stands right out and the whole countenance is a speaking one. The front half of that head, including the eyes, is like the mother, giving loquacious brilliancy, and the middle and the crown sections of the head are like the father, and the middle section of the face is like the father. There is a better combination than blending of the two parents in this child. It has inherited by sections. It has the will-power, the conscientiousness, the ambition and the energy of the father, and the tastes, the

memory, the conversational ability and the availability of mind belonging to the mother.

No. 54 has been beckoning to me from the top of the card to himself. This is a bundle of solid happiness. There is strong vital power and when he goes to the table and they ask him what he wants he will say, "I want dinner; what do you suppose I came to the table for?" And if they say, "Well, *what* do you want?" he will answer, "I want dinner." And he will not care so much what it is as long as he can dine on it. That is to say, he is a hearty feeder, and he has the powers of bodily life amply and heartily developed. He looks as if he were thoroughly healthy and as if he had no notes to pay, or else had plenty of money with which to pay them and as if he had no unfulfilled desires. He will take life by its smooth handle, and yet he is wide awake about knowing. There are few children in this group who are more in earnest about finding out than he is, and there are few who will know more than he does about what is true. He belongs to a healthy, solid, but perhaps not to a very highly-cultured stock. If he wants to be a mechanic he can work at it, and if he were a blacksmith he would like to shoe iron-gray horses that were heavy and strong and not extra quiet. He will always be proud of the fact that he is able to master the situation, and if another boy wants to play roughly with him he says, "Come on; pitch right in, do your best; this is football," and he will laugh if he gets hurt. Contrast this face and temperament with Nos. 9, 34, 36 and 50. Life tastes good to him and he would like to get two days of it at once. He will be a great worker and will want good pay, but he will be a high-toned, moral fellow, although not extra delicate in his way of administering affairs. I fancy that No. 53 has taken a liking to him, for in the group 53 looks as if admiring the smiling boy, and as

these pictures were all taken separately and afterward ingeniously laid together and the group thus copied, we will not encourage the boy to believe that he has made a conquest.

No. 55. Now we come to the presiding bishop. Is not that a self-poised face? It looks as if he knew the whole business, as if he had made up his mind about it and was pretty well satisfied with what he sees and with himself. We find here health, a good degree of strength and the elements of happiness. No. 54 will take care of himself—he would pick up a living. No. 55 may want a little more assistance, and will avail himself of aid embodied in the means of civilization. I fancy he would like to have an elevator to take him up stairs, although he might walk down stairs. No. 54 would be likely to try his speed going up while No. 55 would wait for the elevator, and if he (No. 54) got up as soon as the elevator, or a little before, even though he were all out of breath, he would feel that he had won a glorious victory. No. 54 looks as if he would like to buckle in and run a race against the elevator, or a street car, but No. 55 wants books, and if there was an opportunity for a good education he would get it and know what to do with it. He is ingenious, cautious and fond of property, but he will want to get it by running a bank, an insurance company or a manufactory where he could co-ordinate the labor of others and preside over the whole establishment. He would like to see *Superintendent* printed under his name, or *Colonel* printed ahead of it. We advise the parents to see what they can do to make him a benefit to himself and a blessing to the world, but they should not be in a hurry about it. He should have time to ripen and he will ripen fast enough; he will be strong rather than precocious.

No. 56. This head is a little out of shape and so are several of the others. Infancy often shows a dis-

parity in the two sides of the head, sometimes because all the members of the family hold it on one arm, and the skull being thin the weight of the brain puts the head a little out of shape, but when the child gets on its feet and uses the brain and all the functions then it comes into shape again. The right side of this head seems to be considerably larger than the left side and it roofs up toward the back part more slanting on the left side than on the right side, but there is Firmness and Self-esteem, there is memory and judgment and there is fair talking talent, but not excessive.

Our friend, Mr. Sackett, of Harvard, Ill., took all these pictures in one day, and has, in making up the combination, put some of his best speakers and thinkers in front. We have noticed that where a college picture is taken some of the foremost pupils like to get on the front seat.

No. 57. This elegant adjustment of the little girl's hair we imagine is the fancy of the mother or the sister rather than of itself, but we can see in the face and in the shape of the head a tendency to show style when she gets to a point where style is invited, and she may perhaps forestall style and put it on before it is needed. She is a bright girl, has a good memory, reads character like a book, has politeness and agreeableness and is decidedly positive in spirit. If the parting of the hair is followed backward it will be noticed that the head rises in the region of Firmness and Self-esteem and she will demur to that which does not please her and she will do it in a snappy kind of way. She will say: "I do not want it that way; girls do not wear their hair that way; I will have it this way." She will be attractive, sensitive, nervous and liable to exhaust her vitality rapidly in the school or in the party. She is not going to be an idler for there is not a lazy element in her composition. In fact, there are not very many pictures here that look as if

laziness were a part of their nature. The fact that on September 20, 1894, on "Babies' Day," so many mothers managed to get to the studio, shows that either in the mother or the artist there was not much laziness or negligence.

No. 58. We think this boy is worth raising. He has an uncommonly well-made face, and for so young a child his head seems to be large and well balanced. That is to say, the different parts are about equally developed. He will be a thinker, a scholar and I think a lawyer, and perhaps a governor. He could be a mechanic, a

ally if they study hygiene and physiology and learn the principles on which mental science is based.

Fig. 273. Here we have beauty unadorned, health without alloy, happiness without care and contentment without conditions. Note the satisfaction in that eye, the hearty, healthy, robust and loving expression about the mouth and the plumpness and vitality of the entire bodily structure. See the philosophic repose of those arms, repose without somnolence. Here certainly are conditions that belong to long life, and to uninterrupted health and the happiness which comes



FIG. 273. CONTENTED INNOCENCE.

merchant or a banker, and he will be boss of the job somewhere, and will be a master of men. He is cautious, prudent and shrewd and yet straightforward. His moral development will keep him upright and just; will be liberal and sympathetic, and a kind of central figure, not merely in his own family, but wherever he may move. He will probably be the valedictorian of his class, or the stroke-oar in regattas. I fancy his parents will know enough to bring him up rightly, especi-

ally from health. Here is a large brain. This boy will be an observer and thinker and will have a will of his own. Will be witty, ingenious, skillful, provident, economical, energetic and thorough. Doubtless parental love, as a leading faculty embodied in the mental constitution of our readers, will be satisfied that for a baby, six months old, this is a full pattern that needs little help, responding to all that can be wished for, and supplying a substantial

foundation for all that is desirable and hopeful in human nature.

The artist's cute device of laying a mirror in front of the lounge to represent water is quite picturesque, reminding us of Milton's description of Eve when first she saw herself reflected in the lake which mirrored the beautiful, blue heavens.

"That day I oft remember, when from sleep
I first awaked, and found myself reposed
Under a shade on flowers, much wondering
where
And what I was, whence thither brought
and how.
Not distant far from thence a murmuring
sound
Of waters issued from a cave, and spread
Into a liquid plain, then stood unmoved
Pure as the expanse of Heaven; I thither
went
With unexperienced thought, and laid me
down
On the green bank, to look into the clear
Smooth lake, that to me seemed another sky.
As I bent down to look, just opposite
A shape within the watery gleam appear'd,
Bending to look on me: I started back;
It started back; but pleased I soon re-
turned;
Pleased it return'd as soon with answering
looks
Of sympathy and love."

Fig. 274. Roy Taylor. This is the picture of a boy when he was only a year and seven months old. He is endowed with wonderful executive energy and a tendency to be always on the alert. He has a large brain, a quick intellect, an inquiring spirit, excellent memory and artistic taste. He sees pictures in the carpet, on the wallpaper, in the clouds and in the curling smoke from the chimneys and always has it right, for it looks to others as it does to him after he has pointed it out. He has also a very fine development of the faculty of Calculation. Between the eye-ball and the outside of the base of the eye-brow about where the little curl of hair shows, is an indication of large Calculation. He is noted for mental arithmetic and since he has become older than the picture represents, he teases his friends to state to him difficult problems—fractions, and he always wants something hard. If

an easy question is asked him he speaks contemptuously of it and says: "Oh, that is easy; give me something worth attending to."

The crown of his head is high, showing Self-esteem, Firmness and Conscientiousness large, his base of brain is massive, and with his excitable temperament he is one of the greatest workers. He does not want an easy task nor a short one, and in his plays he contrives the ways and methods that have in them the most possible effort and labor, and if somebody points out an easier way he says, "I know that, but there is not work enough in that; I want all the work I can get." He has been brought up without a cradle and without being rocked to sleep. When six weeks old he was quietly laid in his crib and although he cried a little at first, it was less the second and still less the third time, and in a week the whole business was ended, and ever after when the time came for him to take his rest he was laid in his crib and he went to sleep when he got ready and there never was a whimper. Then he would sit at the table and eat his oatmeal and milk while others were eating other things, and when some visitor asked him if he would not like something else he said: "When I am twenty-one I am to have food like the rest, but now what I have is just right for little boys." He has been fed rightly and in many other respects treated differently from most children and has given less inconvenience to his friends in those respects than children otherwise trained. The idea of laying a child in its crib and having that end it, whatever else may interest the mother or the nurse, saves a world of work and worry and is a great blessing to a child. Most mothers and care-takers of children will remember weary hours of getting children to sleep and then stepping with muffled tread for fear of waking them up. The lack of nerve and wise consideration required to train a

child, once for all, to go to sleep when necessary, without rocking and cuddling, saves a child and the whole family much time, wear of patience and unhappy conditions of disposition. To be half an hour rocking a baby to sleep when the weary mother has a meal to prepare for a hungry husband, and more hungry schoolboys who

inconvenience to the parents, a source of ill-temper and unhappiness in the children, and, what is worse than all, it is a means of undermining the health of the children while yet sensitive and immature. I am told that in England children eat apart from the older members of the family. They have a child's dining-room and



FIG. 274. ROY TAYLOR, MY FIRST GREAT-GRANDSON.

think they cannot wait a minute, works mischief with the happiness of the household and tends to create the impression that a baby is a visitation, a bother, a nuisance! With any healthy child this can all be obviated.

The habit of giving children anything to eat or drink which they may fancy or cry for is a source of great

assistants to care for the little ones. Their food is prepared, and when it is proper for the children to eat their early supper it is given to them and is of a simple and nutritious character, adapted to a growing child, and then they can retire early and sleep enough. If children could be rightly fed until twelve years old it would greatly decrease their early mortality.

CHAPTER XXXII.

A GRANDFATHER'S FIRST FONDINGS.

NOTHING in human experience is so utterly unselfish, considerate and patient as parental love; nor is the love of young confined to the human race. Instances are numerous in which bird and beast have risked life and sacrificed it in defense of their young, but this love ceases in the lower animals when the helpless, infant state is passed :

"The young dismissed, to wander earth or air,
There stops the instinct and there ends the care;
The link dissolves, each seeks a fresh embrace,
Another love succeeds another race.
A longer care man's helpless kind demands;
That longer care contracts more lasting bands."

—POPE.

Accordingly, we love our grandchildren with a double fondness and tenderness—we magnify their excellencies and loveliness, as a double lens magnifies its object of vision. Children's children are extra dear because we have two love-lenses to magnify them.

In this grandfatherly face we seem to see a doubly sanctified satisfaction, a peaceful serenity that needs nothing to complete it. When we remember that he weighs 250 pounds, and has a 24-in. head, we appreciate the calm, massive, and considerate content. How his fatherly arms grasp, and his glad eyes rejoice in his children's children! We may fitly quote and apply to him Burns' epistle to his friend, Tom Moore, since

both have shown skill in the use of the violin :

"Hail be your heart, hail be your fiddle,
Lang may your elbuk jink and diddle,
To cheer you through the weary widdle
Of worldly care;
Till bairn's bairns shall kindly cuddle
Your auld gray hair."

If these children develop such a brow as his, such memory and practical talent and such a tendency to study the length and breadth of matters of interest, and have such a forceful side head, they will not then need his or any sheltering arms to aid them in the pathway of success. The older boy, Roy, Fig. 276, has a broad side-head and a large base of brain like the grandfather. The younger boy is less noisy and executive, but is poised on his own center. He quietly considers what he desires and waits for an opportunity to achieve it. Each of the boys has excellent memory and clearness of observation and judgment. The older boy has also a high crown. He is full of vim, power and push; a bundle of earnestness and excitability, reminding one of old Dr. Beecher's definition of eloquence, "Logic on fire." The younger boy, Malcolm, 277, is placid, patient, and though very persistent, is quiet about it. He will subside when forbidden or when strongly opposed, but he will keep in mind the purpose he has, and when possible, go back to it and quietly carry it out. The older one would take the citadel by storm. What needs to be done at all

needs to be done with a rush and done now, and he is inclined to meet, grapple with and master opposition. The younger one takes his time, makes a spiral circuit of the mountain with an easy grade and reaches the top. The older boy inclines to go straight up like the Mt. Washington railway, employing the shortest line between two points. There

also the basis for the use of patience and steadfastness on the part of those who would be their "guide, overseer and ruler."

When these pictures were taken, Roy was four years and four months old, and Malcolm two years and seven months old. Roy appeared in Fig. 274, and the picture was taken at one year and seven months.



FIG. 275, MATHEW TAYLOR AND HIS FIRST GRANDSONS, ROY, FIG. 276.
AND MALCOLM TAYLOR, FIG. 277.

seems to be in them the constitution or temperament which warrants ample size and strength of body and brain, and the consequent talent and purpose which lay a good foundation for faith and hope in the results, and

SIDNEY WILLIAM MILLER.

Figs. 278, 279. This is a boy of Minneapolis. In one picture he looks as if he were making a discovery, and in the other one as if he had succeeded and was happy over it. We cannot

call it happiness on stilts, or happiness with wings, but happiness without either. He will make his own wings. In his day the wings of



FIG. 278. SIDNEY W. MILLER.



FIG. 279. SIDNEY W. MILLER.

transit for traffic and talk are provided. In the early days of his great-great-grandfather, seventy years ago, Minnesota and a thousand miles farther East was a howling wilderness, and people drove from the Eastern States to Ohio with an ox-team, and thought they had reached the land of sun-down. A letter required several weeks to reach Ohio, and the postage was twenty-five cents. Minnesota was discovered, railroads and telegraphs built and all ready for this boy, and he has just now found out that he lives in Minnesota, and Minneapolis at that. Phrenology says of this boy that he has a fine intellect, that he has one of the acquiring and retentive memories, and that he grinds his own breadstuff on which to feed his immortal mind. He will hunt for facts and know what they mean and put them into shape. He will make a leader and a teacher, not merely of a class in a school-house, perhaps, but he may strike for older game and lead the fathers of the children. He has a broad head. Force of character is well marked and prudence and policy are also well developed. He has ambition enough to crave the highest and best and work for it. He has large Conscientiousness and Hope, and he will be easily led in the pathway of righteousness, if his surroundings are favorable; but he will make a racket and it will mean something, and when he takes "the stump" he will win voters, and when he casts the hook or the net the fish will respond. He will have more friends than he can shelter at once, and he may have to "stack them out."

FIG. 280. BESSIE AND GLADIS CRONKHITE.

These faces are a beautiful study. The six-year-old girl has a real live doll in her baby sister. What a fine face! How well proportioned! Admirable in all its parts; nothing weak in thought, or expressive of slender health. What a fine upper forehead! How many questions are coiled up

there to bother her elders and the wise ones. She will make a good student, and will want to attend the high school before she is old enough to get into it; would make a fine teacher and a good writer. The reasoning intellect is masterful. Knowledge of character is also a ruling trait. Then she has taste for beauty, for wit, poetry, and music, and the moral region of the head is amply elevated. What a sincere face! How truthful and just, and what a godsend to the little one to have such a motherly monitor; young

Fig. 281, Gladis. This is a good-looking baby; full of interest, wants to know it all, and is looking and listening for it, and with such a head and such a forehead, she will follow in the footsteps of her sister and will be a perpetual interrogation point, and the sister will answer most of the questions. What splendid Imitation, as well as reasoning intellect. Fine Language in both the children; the eye is full and liquid. See how broad the baby's head is above and about the ears. She will wear out shoes, carpets, door-latches and stairs. She



FIG. 280. BESSIE CRONKHITE, SIX YEARS, AND HER SISTER GLADIS, FIG. 281, SIX MONTHS OLD.

enough to sympathize with infancy and womanly enough to beckon infancy onward and upward and regulate and control the young mind wisely and well. One would not think, without remembering, that some bright and beautiful day their pathways will separate. Somebody will institute the dividing line, and while the little one will be glad and the elder happy, there will be pensiveness and a shadow mingling with the sunshine.

will be wonderfully witty, hopeful and enthusiastic; will love everybody except those who offend her. She will be an economist; will be a free talker, but a wise one, and will hold her tongue when it is not wise to say anything. Caution will keep her out of harm's way, and Friendship will win for her much attention. The picture reminds us of the lines:

"In childhood's happy, morning hours,
The smile of love, like Mayday flowers
Shall gild its opening years."

Fig. 282. This is a bundle of sunshine, of health, hope and happiness. She will incline to take an optimistic view of life and duty. Will expect success and be willing to earn it. Her breadth of head will give her industry, force of character and a tendency to be master of circumstances. Will be willing to put effort, skill, talent, tact, push and persistency into everything desirable and attainable. She has a good memory of forms and faces and of things generally. Will show artistic talent and fine mechanical skill. There is

will be a willingness to put forth works with faith. The physiological conditions are rarely better represented than here, and the intellectual and the emotional elements will enable her to take rank among the best, and she will hope for success through ample, earnest and hearty endeavor. If the water for the family were furnished from a town pump, she would want to accompany the one who went for it and would try to do all the pumping, and she will apply the same spirit to all the labors of life, with a willingness to contribute the



FIG. 282. HELEN P. SACKETT, AGE TWO YEARS.

caution and watchfulness, but not that painful solicitude which, like a shadow, follows and darkens the life of many people. She rejoices in the full moon and hopes for it until it comes. Her two years have promise of seventy-eight more. To a physiologist there is nothing that would indicate weakness of lungs, weakness of heart or weakness of digestion. With her phrase "Give us this day our daily bread" will be uttered with unction and faith, and there

requisite effort for the coveted success.

If this girl could have a medical education it would be to her a passport to success in the way of business and as a means of benefiting mankind. She would carry hope and cheer to the bedside of the sick, and her magnetic touch, her hopeful words and especially the tone of her voice would be a benediction and an encouragement to the desponding invalid and to the expectant friends. Besides,

her practical talent, her thoroughness, her energy, her ingenuity, her force of character and her sympathetic temperament would make her successful in the healing art.

TRAER CONRAD.

Figs 283, 284. This boy is two years ten months old, weighs thirty-two pounds and his head measures in circumference twenty and three-eighths inches. These measurements are large for the age, and the brown hair, the dark eyes and the vigorous physiological manifestations show good inheritance and a strong hold on life, with a promise of excellent intellect from the length of the front head, measuring largely from the opening of the ear to the forehead, and indicating clearness and vigor of thought, and power to master whatever belongs to the realm of scholarship. His perceptions take notice of phenomena, his memory treasures it, and his strong reflective organs will comprehend the principles involved, hence he would become a good writer or teacher, and make himself useful, widely known and respected.

He has good moral development, shown by the amplitude of the top-head, and strong social feelings, shown by the great development of the back-head, and force, executive-ness, ingenuity and skill as well as economy from the fullness of the side-head. From the letter received with the pictures we learn that the boy was named in honor of Dr. Traer, who, while lecturing on Phrenology in Iowa in 1886, suggested the propriety of the pairing in marriage of the parents of this boy. He told them that they were well adapted to each other in marriage. They were total strangers and formed part of a group of persons who were invited to come forward to the platform at a lecture. They became acquainted and were married a year later. They have two boys and two girls; the boys resembling the mother

and the girls resembling the father. This boy has almost exactly the same profile outline of his mother's head



FIG. 283.—TRAER CONRAD.



FIG. 284.—TRAER CONRAD.

and combines within his make-up the union of English, French, German and Hollandish stock.

CHAPTER XXXIII.

PRECIOUS TREASURES.

FIGS. 285, 286, Helen W. Von Volkenberg. Here is a strong character. A healthy face, harmonious in its development, indicating constitutional vigor and long life. The head is large and amply developed in the upper side region. Mirth-

genial sun comes out rejoicingly, and her friends have proposed to her a visit to the candy store and she has a lively recollection of favors to come;



FIG. 285.



FIG. 286.

FROM GRAVE TO GAY.

fulness, Ideality, Cautiousness and Approbativeness are large. She feels neglected. She has not been courteously or cordially treated, and she has done something which she thinks may displease her papa. She is weighing the subject with earnestness and anxiety; her face is fixed as marble and she seems sad, but not crushed.

Fig. 286 exhibits a different mood. The clouds no longer lower; the possible storm has blown over and the

and so we have in this a good physiognomical transition. This girl will be a student and a solid thinker. She will show excellent memory; a taste for art and for mechanism; will be ingenious to do anything that needs to be done, from cooking a dinner to trimming a hat.

Fig. 287. This picture is entitled "The 'Judge' at Three." This self-nominated candidate for fame and fortune appears to have weighed anchor and is looking for the prom-

ised land with less anxiety about it than Columbus and his men had in their hunt for the unknown. This boy looks as if he were pretty sure

its fire-crackers and banners. He may eat heartily when he has nothing else to do, but he would rather have a gun, a drum or a dog than a dinner.



FIG. 287. "THE 'JUDGE' AT THREE."

of his cause; that he sees the game he is after and is bound to be a success. He has a nervous make-up. He is inflammable, intense, positive, plucky, enterprising and willing to take chances. He will accept and absorb knowledge, especially of the aggressive and enterprising sort. He will look out for roller skates, the bicycle, the boat, the fast horse, the balloon and the Fourth of July, and all that glorious word means, with

unless he could manage to make the claim sure upon all. He has much of the artist, the dramatist, and of the orator, and there is a great deal of good in him if it can be regulated and guided, but rough treatment, injustice and coldness might spoil him. He will want a good many shoes, will wear out a good deal of clothing, and will incline to "tear a passion to tatters," if not his clothes. Life with him is on a high key. He looks as

if he wanted to say, "Hip, hip, hurrah!" and yet we do not get an idea of coarseness. If he has a good chance for culture he will take it rapidly, but he should have wise and gracious associates. He will never submit to meanness and injustice without a struggle.

Figs. 288, 289. These pictures come from Vancouver, British Columbia. The proportions of the head are favorable to general harmony of character. The head is broad, and he will manifest prudence, policy, the desire to acquire, the capacity for machinery, and he has a temperament which would relish metallic substances. He would prefer four quar-

bending stability. There is some tendency to be contrary and to hunt for a chance to differ from others. He is not easily driven and not very easily coaxed. He will have to be consulted as to what he would like or prefer, and people who have to deal with him get into the habit of finding out his preferences. He will emphasize the word "no," and if he utters a threat it will not be very noisy, but those who know him will expect it will occur. He may have been unwilling to sit for the pictures, as he has somewhat of a sulky expression. He will show strong affection when aroused and concentrated, but he is not very mellow or pliable in spirit.



FIGS. 288, 289. A. FRANKS, AGE FOUR YEARS.

ters to a dollar bill. The silver would seem to him more substantial—not liable to be blown away or burned by a lighted match. He will mend things with iron or other metal. Would work wood out of carriage-making and put iron in its place, and would do the same in bridges and buildings, and if he were to become a mechanic he would want to do something in the way of machinery, plumbing or manufacturing silverware; things that are not easily broken. He has the spirit and disposition which will give him un-

Figs. 290, 291. This is a specimen from Illinois. He looks brave; he has a broad head and is going to need more guidance than assistance. The front view shows breadth of head. It seems rounded out above the ears. The side view also re-impresses the thought. He has large destructiveness and combativeness, giving force of character and courage to struggle against difficulty and opposition. He has decidedly large secretiveness, which is shown in the fullness in both portraits, about one-third of the

way from the top of the ear to the top of the head. He can look calm and yet be anxious. He can tread with noiseless step when detection would be damaging. He can play a borrowed character if the play requires it. He has large acquisitiveness; he will be wide awake for the dollar and he will make money in almost anything. In the early mining regions in the golden West the methods of washing for gold were not complete, and the gravel and sand that had been washed were thrown into great heaps as the men worked onward. Some years later the Chinamen, who were willing to do more work for a given compensation than

though its appearance would indicate it. He does not to-day carry the countenance that would indicate his desire to use such a weapon, but whoever assails him and arouses his fire will find him loaded with the power of self-defense. He is not inclined to assail, but it will be unwholesome for his equal in strength to assail him. He has a fine intellect; he will reason and think. He has mirth and the sense of amusement. He has the power to imitate, and will make a good talker.

He would make a good mechanic and he will be a business man. He will make every dollar and every half dollar tell. What a back head!



FIGS. 290, 291. DONALD GREENE.

others, went into the gold regions and washed over these heaps of sand and gravel that had already been washed by the Americans, and they made a fine thing of it. So this boy will be able to follow other people's administration and gather up by economy what they by carelessness had left ungarnered.

He would make a fine surgeon. He has the requisite ingenuity, and will have the nerve to use the knife. The reader will not consider the implement that is shown in his side pocket as being a dirk handle, al-

How long from the opening of the ear! Friendship will make him want a long dining-room and an extension table, and he will make money enough to furnish the means to entertain. His Firmness is enormous; from the opening of the ear to the top of the head in a direct line the distance is great, and the ear is low down. He has a large middle lobe of the brain, and is likely to be tough, enduring and long-lived, and will be one of the most skillful, efficient and reliable characters to be found. He is worth raising.

Figs. 292, 293.—We have here a good study of physiognomy; the law of expression is admirably illustrated. In looking at these faces one would hardly suppose they could in repose look alike. There is as much difference in disposition between people

tented, and the other one exercised by the deepest sadness? Is it wondered why Serenity can be calm and happy when Sadness is suffering intense sorrow at his side? The photographic processes are a marvel. If not a mystery they are an astonishment



TWIN BROTHERS. 292, SERENITY, AND 293, SADNESS.

who are good-looking as there is in the looks of these two boys as seen here. Left entirely to themselves, in their normal state they would look very nearly alike. The one in normal condition is serene, and appears bright, intelligent, thoughtful, cautious, ambitious, steadfast, thorough and prudent. The other, judged by his head, would give us about the same result, and of the two he is perhaps the stronger character. Does the reader wonder how two pictures could be taken, one looking perfectly placid, restful and con-

and yet a most wonderful triumph of science and art. These two boys were seated and were alike happy, and the artist or his assistant had something to exhibit to the boys at a distance which attracted and riveted their attention, and just when this was accomplished and the operator was ready to take the picture, by a concert of purposes a person was in behind and suddenly pinched Sadness and we see the result. The snapshot was taken just as the face came into instantaneous sadness, and Serenity did not know what was going

on and did not have time to move or wink his eye after he heard the cry of his companion until the sitting was completed. If one thinks of this and the difficulties which seem to surround it, the wonder of photographic art is manifested. The poor little fellow did not have time to shift the grip of his hands, possibly it intensified it, nor did he have time to move his toes, but he put on the physiognomical expression which in the picture is as fixed as time. To have made this experiment perfect a picture should have been taken of the two boys in their normal state, and then afterward one of them manipulated for the abnormal expression. As we have them now one awakens our admiration and the other one arouses our pity. But something must be sacrificed to science and art.

Fig. 294.—If we were to say that this is a perfect organization, that in temperament, constitution and harmonious proportion there is nothing to be desired, we should have this consolation at least, that we have no idea who her parents are, or what friends of hers might suffer in feeling or feel happy and flattered with the description we give. Most of the children brought before the public in this series are utter strangers to us in name and residence. Many are rich in promise to the community and to their own friends and relatives. Some of them lack constitution and the elements of endurance and power. Some of them lack sufficient brain development on which to predicate fame and fortune. Some are hard to manage, some are mellow and pliable. Some are not as healthy as they ought to be and may probably join the angel-band before they have reached maturity, but this child appears to be pre-eminently fortunate in having a physiology above criticism. Look at those plump shoulders! How much health and beauty they bear! And look at that deep chest! What copious breathing power! And then the face corresponds with it, indi-

cated by the fullness of the cheek outward from the nose, and the marvelous health and vigor are sustained by one of the best vital temperaments we ever find. Then the head is large and finely formed, indicating the mental temperament.

We find in this child brilliancy of talent; language that is copious, elegant and ornate; memory that is unfailing, and the faculty of criticism which will be generally right, with moral sentiment enough to stand erect in the realm of temptation and be master of its own fate and fortune. She is wonderful in ambition; she has steadfastness, integrity, courage and determination enough to carry this eminent endowment with skill, acceptance and moral worth.



FIG. 294. CUPID'S DREAM.

Every loving mother and every proud father having the opportunities to give such a child its proper place and environment would rejoice in calling her daughter. Yet the mystery of human life shows that the weak and the wanting awaken in parental affection a degree of tenderness having no touch of pride to mar it and no element of ambition to pervert it. The little and the least in innocent childhood touch parental love more tenderly and completely than a glorious child like this, who needs nothing but guidance.

FIG. 295 —OWEN L. CROSSLEY.

This young spectator of the good, the pleasant and the witty looks as if he had found everything in the world as he would have it. He appears as if he had not yet come in contact with any of the reverses and



FIG. 295. OWEN L. CROSSLEY.

contradictions of life. We do not know that he was born in the merry month of May, when all nature is glowing with beauty and promise, but his expression would indicate that the skies he first saw were bright, the earth beautiful and the friends kind. His attention seems to have been awakened and concentrated, and he is pointing at something pleasant and desirable with his tongue, as the setter dog points, and always has his eye and his attention on the bird he has sighted. This little fellow has health that will last him eighty years if his countenance can be trusted. Those little plump cheeks look as if they would hardly yield to the pressure of the finger, showing signs of good digestion and also plenty of breathing power. The crown of his head is very high, and he will want his plans carried out. A child with a head like that will acquire a potent influence with his friends and nurses. He will not peaceably yield to be tucked into his clothes as if he had no bones in his arms. If they hold his apron up and ask him if he can

put his two little hands in at once he will think it is fun and not object to being dressed, but if they undertake to force him into his clothes he will resist. He has large Conscientiousness, and ought to be honest and upright. He ought to be enterprising, energetic, frank and watchful, decidedly moral, but not timid. He will be a good scholar, a good talker and an energetic business man.

Fig. 298.—S. H. This subject is an interesting study. The temperament is quick as a flash and the motions rapid and accurate. The brain is large for the size of the body; the Mental temperament is preëminently indicated. The organ of Mirthfulness is decidedly strong, and, with such a temperament, keen as a razor. Mirthfulness and Ideality are on the upper and outer corner of the forehead and are finely indicated. The eyes are large and open, indicating wonderful facility in language. The



FIG. 296. S — H —.

top head shows strong moral feeling. The head is high and broad at the top and not very broad at the base. This child gives in this picture promise of brilliant talent for language, literature, for artistic skill, mechanical ingenuity and strong moral sentiment.

CHAPTER XXXIV.

CHARACTER STUDIES NUMBER 1.

ELLA WHEELER WILCOX.

This gifted writer, who has been called the "Song Bird" of the Northwest, is a native of Wisconsin. Her family were in reduced circumstances at the time of her birth, though possessed of much intellectual vigor and ambition. Her advantages for early education were exceedingly meagre, but her literary talent showed itself at the age of eight years in the composition of both verses and prose stories. At nine she was a local celebrity, one of the products of this period being a novel in chapters, headed with original couplets, which is still in the author's possession. At fourteen she became a contributor to the New York Mercury, the Waverly Magazine and the Saturday Evening Post. Two years later the proceeds of her pen were a financial aid to her parents. Her verses attracted immediate attention. At the age of twenty her name was known throughout the West, and her poems had been commented on by the Eastern press. "Poems of Passion" was the first published work which gave her international fame. This elicited a veritable storm of censure and praise in almost equal proportions, and extended over two continents. Her principal poetical works are: "Poems of Passion," "Poems of Pleasure," "The Beautiful Land of Nod," "How Salvator Won, and Other Recitations," "An Erring Woman's Love."

The books in prose are as follows: "Sweet Danger," "Was it Suicide? and Other Stories," "Adventures of

Miss Volney," "A Double Life," "Men, Women and Emotions." The last named is the youngest of these children of her brain and is expected to create a furor.

Mrs. Wilcox has been for many years a resident of New York City, where her personal attractions have completed the social conquest for which her remarkable talents had paved the way. Her domestic life is characterized by great practical benevolence, boundless devotion to her husband and to the memory of her lost child.

The following phrenological analysis was made from a personal examination, Mrs. Wilcox having been presented as a stranger and without giving any intimation as to her identity. This is the verbatim report of the stenographer:

You have a strong character. You are like your father in your dispositions. You may have your mother's intelligence, her tact, her sensitiveness, her sentiment; but when it comes to the real work of life, you wield power in your father's spirit and name. It is favorable for a daughter to resemble her father, if the father and mother are equal in their characteristics and capabilities, and it is, in the same family, better for the son to resemble the mother; then both sexes are in spirit blended in each person. The daughter gets the courage, pride, ambition and enthusiasm by inheritance from the father, and the son gets the gentle-

ness, the pliability, the instincts and intuition which belong to the feminine; the daughter carries those by virtue of being a daughter, and the son, by virtue of being a man, has force and executiveness enough.

You have a strong tendency to be firm and determined; and when you think you are in the right you are plucky and brave. You have ambition in a marked degree; that gives you enterprising enthusiasm to do something that is worth mentioning. You do not like to be inconspicuous. You have sometimes thought that women who are veiled as they are in the Orient, only having a place to peep through to see where to go, and not to be seen, must find it very undesirable; it seems to you very unnatural. You like to manifest yourself. You would like a position where there was elbow room for mind and body, for power and for will.

You are headstrong. Your Firmness is large, and that tends to give that disposition. Your Conscientiousness being strong, makes you feel that whatever is right has a right to be. Then, when you get started, your Approbativeness tells you to win success and make yourself and what you do noted and conspicuous. If you were on the stage you would work according to the audience you had; and if they were a cold, frozen kind of people, who had no enthusiasm, though they might have intellectual sagacity, you would not think much of them. You would like to have the audience boil over; you would like to have the people rejoice when pleased. You will risk their frowns and hisses if they will only give you credit for what you do that is laudable and deserving; you will run the risk of the mistakes.

Your Self-esteem is well-developed; you believe in yourself; but you are not so much inclined to lord it over other people as you are to demand your own rights and interests. From a little child you have always been inclined to repel undue domination.

You should as a child six years old, do a great deal better and would be dressed quicker if they would flatter you, tell you to have on your little this and that, instead of pulling and hauling you. You have enough of the masculine independence in you to make you resent and resist anything that seems like coercion.

You have large Combativeness; that gives you courage to do a good many things that another person in your circumstances might hesitate about doing. With your large Caution you are watchful; and like a man who rides a circus horse, you keep balance for the sake of caution, and you keep up motion for the sake of safety. A person cannot stand on a horse when he is still; when in motion he can keep his equilibrium.

You are good in executive work. As long as you can be doing something you are not bashful; when you stop and they make a wall flower of you, look at you, you begin to be embarrassed.

You have strong Friendship. You have strong Love. If you were a writer you would be a strong writer. You would put in a great deal of impulsive earnestness. If a thing should be said, you would say it strongly because it was true; and you would expect approval. If you were a public speaker you would be brave in your statements. You would make very strong general statements; and if you had occasion to make them specific you would be definite and earnest. You win friends more by the strong things you do than by avoiding that which offends. Some people glide along as an eel swims through the grass near the water's edge; he goes through without making a ripple at the top of the grass; nobody knows he is there; but the pickerel goes through as straight as an arrow and he makes the reeds tremble because he hits them. You are more like a pickerel than like an eel. You get there, but you do not care so much who knows you are coming.

I suppose you have always felt circumscribed by the fact of sex. You have felt that if you were a man you could take more elbow room and do a great deal of good, and do it in

are restricted; if they have wing and power enough to rise above the fences they are all right.

You are remarkable for your power of affection as a friend. You would



FIG. 00.—ELLA WHEELER WILCOX.

a manly, strong way; but to be obliged to prune your conduct because you are a woman does not suit you. There are some women who have courage enough to carry themselves as women without feeling that they

be loving as a lover or wife. You would be motherly. You would like to train boys rather than puny, tender girls. You are better qualified to drive a strong horse that will go somewhere than you are to coax one.

that is timid and does not know whether he can go or not; consequently, a brave, plucky boy who thinks he could do almost anything, you could teach to be manly. If you were a teacher you would like to teach a boys' school, because boys have courage, pride, will-power; and you would manage to harness it and get it to work in your interest. You would not quarrel with it. If you wanted to control a young man sixteen years of age, a younger brother, you would say: "Now, Johnnie, there is in you the making of a good deal of a man if you will only carry yourself wisely for the next six years. It is convenient, and it would attract the desire of most boys, perhaps, to do as you propose, but twenty years hence it would not be half as good for them as to buckle right in and grind their axes so that they can hew their way through the world. Get your education; then if you want a yacht you will know what to do with it." So you would send him back to his books. Then if you had a brother who desired to quit college and thought he would not return after vacation, you would send him back with a double-headed interest in it by telling him that "it doth not yet appear what you shall be," but if you are faithful in this you shall be successful in that. This is the way to be master by and by.

We very seldom find a person who has as much force of character, as much ambition and enterprise, as much will and determination along with as much prudence and integrity. It is a rather interesting combination. You are bound to do something, and to do it emphatically. You are not one of the kind to scud along under the shadow of the fence and keep out of the way of responsibility. You take the middle of the road.

You have hope enough to expect that which you need. You have faith to believe that which ought to be shall be; consequently you work toward success with more effort than

most people do. There are people who stand at a distance from duty and effort, and wonder and wait, doubt and hesitate, till the time for success has gone; the tide has turned; they cannot catch any more fish till the tide comes back again. If you had a boat and knew how to sail it; if you had a team and were accustomed to use it, you would get a good deal out of both; a good deal of distance without loss of time. If you had duties that required enterprise and energy, and were trained to the performance of them, you would get as much out of life as almost anybody could.

You have large perceptive organs; these give you quickness of appreciation. Individuality is large enough to give you a sense of what there is around you. If you were a writer you would be a good descriptive writer. You would describe scenery, you would describe conduct, you would appreciate motive, and you would have the skill and tact to make what you thought readable. You remember facts. You gain something from everybody you meet. Your Language is large; that enables you to express well what you know. You appreciate music. You enjoy the poetical. You have constructive power, the ability to weave thoughts into proper form, give expression to ideas and make them acceptable and interesting.

You have a good degree of the sense of value, the idea of property and profit. If you were accustomed to work for the public you would manage to get good compensation, good reward for what you would do. You have the faculty of taking your own part, asserting your rights and maintaining your interests. You have the power also to conciliate people who have power and influence, and to get them so they will work in your harness and pull at your end of the rope in the path of progress. For example, if you were a lecturer you would get invitations; if you were a concertist or a writer you would get employment. People would want

what you could do, what you could say and think, and they would let you name the figures, or they would name those that you would be willing to accept. You do not have to tease for a hearing or make an effort for a position.

You get your strength of character from your father; your courage, fortitude, ambition and your consciousness of power come from him, and

with your feminine sympathies, perhaps inheritance in part, you are able to harness these forces so as to make them acceptable. It is like making lemonade with lemon juice and sugar—people think it is better than either of the ingredients separately. By all means speak or write either prose or poetry, and give your courage charge of your convictions and you will make a high and an indelible mark.

CHAPTER XXXV.

CHARACTER STUDIES No. 2.

EDGAR WILLIAM NYE,—[“*Bill Nye*.”]

As a writer this gentleman needs no introduction to American readers, although the first two-thirds of his name are not so familiar to the average eye or ear as the well known monosyllable “Bill.”

Mr. Nye was born near Moosehead Lake in Maine, though he moved from there while very young, and, as he says, “lived in the West among the rattlesnakes and Indians,” until he grew up. He practiced law for about a year, but according to his account he managed to keep the matter very quiet, so that only a few people ever knew much about it.

However, he was afterward a Justice of the Peace for six years, and his success on the bench was quite pronounced. Many interesting anecdotes are related of his career as a judge in the town of Laramie.

There can be scarcely a doubt that his keenness and penetration of mind, his quaint literary style, and marvelous familiarity with all phases of character, are the outgrowth of lessons learned in that primitive Western atmosphere, where all the springs and fountains of the heart gushed forth without restraint—where men and women knew little of conventional disguises, and could be studied as they really were.

Mr. Nye's home is on Staten Island, where he owns a large house, about half

a mile from the landing at St. George. He has a beautiful wife, and four children which are divided equally as to sex.

The humorist is about forty-three years of age. He is rather loosely built, large boned, six feet in height, and straight as a plumb line. Those who can read between the lines of his writings will find a great deal of philosophy in what he says. Like most men of his profession, he is characterized by gravity of countenance rather than by an expression of mirth. This is due to the influence of Secretiveness, which, aside from the intellectual cognizance of incongruity, is the chief factor in the sense of humor.

Another peculiar feature about his work is the manner in which he always makes himself the target of his ridicule. No shaft of sarcasm is ever directed where it will cause pain to others. In this way he is enabled to give his fancy a much wider range than if he pursued any other course. He is also saved from the danger of falling below a particular standard of literary polish. He never writes under a strain. He has made for himself an original path, and it has led him to wealth and fame. But he deserves his success, for he has earned it. If he has received honor and riches, he has given healthful pleasure in return.

The following phrenological description was dictated to a stenographer, Mr. Nye having been introduced to me in the consultation room simply as "Mr. Edgar," without giving any further hint as to his name or occupation:

You have a fine quality of organization which gives you susceptibility, and you have a pretty good frame, but you are not one of the tough sort. You are more active and sprightly than hardy. Some men, like some horses, have toughness without measure. Some men, like some horses, have speed with considerable toughness in that direction, but we do not call the speedy ones hardy; they cannot keep on flesh and work hard.

You have what we call the Mental Temperament. Your head measures $22\frac{7}{8}$ inches, and if you had as much hair as people generally wear it would be called a 23-inch head because it would measure that. Such a head requires 175 pounds to carry it. We just had a subject with a 23-inch head who weighed 123 pounds. She was 19 years of age, so it took our best efforts to teach her how to carry such a head with such a body. We told her to sleep twelve hours every night if she could. If you sleep eight hours it will answer because your head and body are well balanced. The larger the head in proportion to the body the more sleep a person requires. You rest fast, you work fast and think fast. You are intense in your life. You are not what we call a moody man in your thoughts and conceptions. The vision you get of the outward life and inward life is such as can be obtained through a clear plate glass.

You have a critical mind, power to know the difference between one thing and another, one shade of thought and another, one term of expression and another. You have Constructiveness large, and that may be employed in diverse ways besides the use of tools and the management of machinery. A man who is a painter will get in a group of horses like those in the picture of "The Horse Fair," or a group of men like those in "The Declaration of Independence," and he will arrange them in such a way that they will be harmonious

and look easy. A man who has good Constructiveness will pose a subject for a photograph; he will arrange groups of anything, in a front window for instance, and make them look harmonious and easy.

Your Ideality is large; that gives you a sense of the beautiful, elegant, ornamental and decorative. You have large Acquisitiveness; that gives you an appreciation of the dollar or value side of life. It always seems to you that anything that is worth having for anybody or for any animal should not be wasted. Strings are too good to be lost; you want some place to put them so you can find them when you need them. You have a place on your desk for pens and other things, a certain place where you will know just where to reach for them; so Constructiveness and Economy work together. If you wanted a house you would contrive just how you wanted it; you would plan the rooms, would know just how many you wanted and how large the rooms were to be before you decided about the general size of the house.

Your sense of music is pretty good. You enjoy the harmony of sweet sounds and are pleased with the musical execution of those who have good voices and know how to use them. You meet people sometimes and say, or think it, "What would I accept as compensation for living on the same ten-acre lot with that voice."

Imitation is large enough in you to copy sounds and voices. If you were engaged in earnest conversation with a person and were telling of a dialogue about some matter between two people you could imitate their voices so that the person would know right away whom you were imitating, if he were acquainted with them.

You appreciate the droll and funny side of life as well as the dramatical, æsthetical, mechanical and economical. You appreciate, also, the prudential side of life. You are not cunning but you are judicious. Sometimes you silence inquisitiveness by utter frankness. Sometimes if persons ask you questions about something they have no business to know anything about you

just answer them squarely, and you will do it so plainly that they do not believe it to be sincere. We knew a man once who asked

would be more likely to bluff a man in this way: If a man came to you and said, "When is Miss Jones to be married?" you would say, "Well, I have



FIG. 00. EDGAR WILLIAM NYE—[*"Bill Nye."*]

a young lady when she was to be married, and she replied, "Next Wednesday, if that will suit you." He concluded that she was not to be married before Christmas, but she was married the following Wednesday. You

been thinking of that myself for three or four months, but I suppose when she gets ready she will announce it." You may have an invitation to her wedding in your pocket; but you have told the truth—you had wondered about it.

What you say sounds so frank that the man thinks you do not know. A man who has a fair development of Secretiveness and a pretty good share of Mirthfulness rather enjoys toying with topics in that way, especially where inquisitive people meddle. You would enjoy the thought of a person remembering it and finding out how he had been bluffed.

Your Firmness is large; it is more a steady strength of character than it is obstinacy. Yours is not a sudden spurt of contrary obstinacy; it is more of a steady pressure of persistency that does not get angry and boil over. Instead of saying to a man, "Mind your own business, and do not interfere with my affairs," you would quietly shake your head, as much as to say, "You are not going to find it out; you are not going to be my master in this matter; I am going to get the best of you by following my own course." Firmness sometimes is like a screw which works silently and steadily, and sometimes it is like the crashing blows of a sledge hammer—then it makes more noise and gives more of a shock; but the screw goes on and does not let up. That is like your Firmness. It is intellectual determination; there is a moral sense that comes in, a persistency that helps it, as well as a feeling that gives obstinacy; but it is obstinacy tempered by other faculties. It is not boisterous, neither is the force of the screw, but it is sure.

Approbateness is larger in your head than Self-esteem, consequently you care more for the approval of others than some men. You mingle with people who deserve your confidence and respect on terms of equality. You do not stand on a pedestal like a school teacher before the pupils—you come down on a level. If you were teaching school you would not stand on a platform, you would be on a level with the pupils; and you would lay your hand on a little girl's head and assure her that you were her friend, and though she was bashful and sensitive you would help her. In other words, you do not keep people away from you; you do not

have a spirit that repels people; you do not feel that you can make more in the world by pushing through people, keeping them down and back. You try to win your way among men who are your equals more by real skill than by brusqueness, even if you had a right to be brusque, if rights go in that direction. If you were a judge on a bench you would lean forward to listen to what might be said to you to make sure that you had really gotten the right conception of it, and if you heard it rightly you would be clear and sharp in your response, but you would not be rough in your demonstration. You would say to a lawyer who was pushing a point: "Brother Smith, can't you avoid pushing that any further in that direction? Is it necessary to insist upon that point?" That would be your way of telling him that he could not go any further in that direction. "You have said enough." Some men would say it that way, but while you cut off his progress and he feels reprov'd, he does not feel insulted. You know what to say to censure and reprove a man and accomplish what you wish, but you utter it in such a way that he feels nobody else will see it, and if others do not see it he does not care much, because he has tried the experiment and he did not know whether he could carry it through or not; but anywhere he might chance to meet you he would treat you with curved lines instead of straight ones. In other words, you want to evade an overt manifestation of authority; you want to accomplish what you wish without saying sharp things. You try to mould people first—if the horse will move at the sound of the voice you will not hit him. You like to have men come to the right line of conduct without raising your voice or saying anything sharply.

You would make a fine practitioner in medicine; you would treat people with kindly sympathy that makes them feel that they are pretty near to you. You know there are some men we respect highly in every way, but somehow we never feel that we are within

touching distance of them; we accept their assistance or what they say, but they are not brothers exactly. You treat people in such a way that they feel pleased to have you near them. For instance, there are some men who practice dentistry, and when they come to examine the mouth of the patient there is a recoil, a sense of—I wish I could avoid this. You have a temperament that makes it easy for people to submit to necessary inspection and not feel uncomfortable or nervous about it. There is about as much difference in the moral and intellectual prejudice as in the physical.

You inherit pretty liberally from your mother, and she may probably have strongly resembled her father. The nose is masculine, but the other parts of the face, except the cheek bones, have as much of the feminine. The development of the head is more likely to come from the mother.

You are social, loving, affectionate, susceptible. You have Combativeness and Destructiveness enough to make you spirited and energetic. You work

fast and hard when you have occasion for it. You love truth for its own sake; you love honor because it is honorable. If we could give you a little more Self-esteem we would do it. If we could give you a trifle more of Veneration we would. Perhaps a little more hope would keep you on the sunny side of the fence, where the grass gets green earliest.

You should have had a good education. You would have made a fine speaker or writer. You could have done well in the scientific world, in the mechanical or artistic; and you would have done very fairly in the commercial. You would make a good editor with the practice and culture that is requisite. People would learn to know your writing. If you were on one of the large dailies you would write for what is called the humorous column, and a man who read an article of yours day before yesterday might not know the name of the one who wrote it, but when he took up the paper he would hunt for your *nom de plume* if you used one.

CHAPTER XXXVI.

CHARACTER STUDIES, No. 3.

GEN. MARSHALL C. WENTWORTH.

THAT the reader may fully appreciate the history and condition of the following examination, it is proper to state that in the year 1879 we received two photographs of a gentleman for phrenological analysis and also of a lady (without a name), with a request that a written statement be made of the gentleman and an opinion of the adaptation of himself and the lady for marriage. The work was dictated to a reporter and a typewritten copy sent. During the year 1893, I learned that this description had been made, and solicited photographs from himself and wife and permission to publish them.

The reader now has before him the

description then given of Mr. W. and his presumed intended, but who had been his wife for nearly nine years, and also a brief biography of him.

M. C. WENTWORTH AND LADY.

(Described from Photographs, January 22, 1879.)

“You have a very fine quality of organization. The hair particularly is as fine as that of a child, and we judge the skin to be of a similarly fine quality; and you have constitutionally more harmony than falls to the lot of the majority of men. You are intense in your mental life, your feelings are exceedingly keen, are particular to have

everything as nice as it ought to be. You always do your best in everything you undertake, and are not satisfied unless you secure ample success, not only in a pecuniary sense but in the work that you do. In some of the old temples of antiquity there were niches in which statues were set, and they were so high up that no critic could see anything except the front. When the temples were thrown down by time and decay, it was found that these statues were as carefully cut, and all the anatomical outline as faithfully portrayed in the back of the statues as in the front. And there is a legend that when the artists were making these, they were told that there was no necessity for cutting the back of the figures nicely, because they were utterly out of sight, they would never be seen by mortal man. The reply of the artists was, "The gods will see them." Now, we believe that you want to do things as nicely as they can be done if "none but the gods see them."* And you will excuse us for saying that we think you are a little whimsical on some of these topics; that you sometimes take more pains than there is any necessity for; that you exact of other people more particularity, nicer work, and they sometimes grumble when your back is turned because you are so capricious about niceness, or old maidish, as they sometimes call it.

You inherit pretty largely from your mother, and we should think that she was from Welsh stock. You have her forehead and her back head, and her features in the main, except that the nose is a little too large for the mother, but, being a man, you have a right to increase the size of that.

You are quick in your intuitive judgments, sharp in your sense of what is right and true. Your first opinion of matters and things is generally your best. If you were driving a team and it got frightened, or the harness were to break going down hill, you would seem to know exactly what to do at the very first flash of thought. If things got mixed up and out of order, you have an intuition to judge what is best to do under the circumstances, and

you come to results readily, and rarely have occasion to regret your opinion or decision.

You gather knowledge rapidly. You would acquire scientific information easily. You could become master of a fine style of composition in literature. There is a certain exactitude in your cast of mind, a certain criticism which knows what it doesn't want, and is satisfied when it gets the right thing.

You are a first rate judge of human character, and enjoy biography almost better than any other kind of reading, for if it be well written it involves philosophy, history of affairs, and matters that have more or less logic in them, and it is that which you like particularly and above all—the delineation of human character, motive and purpose. If you were to undertake that literary branch, namely, biography, you would excel in it.

You have faith in things spiritual, you have reverence for whatever is venerable and elevated and refined. You have firmness enough to give you perseverance.

You have caution enough to make you watchful, guarded and prudent. You are a good manager in financial matters, but you always carry yourself in such a way as not to give the impression to people that you are illiberal and grasping.

You are ambitious to be respected. You would suffer if you were degraded or disgraced, and if people were to come about your house in a way to bring discredit upon it, you would be more troubled about it than most men. You feel in duty bound to live in the community in such a way as not to incur the disapproval of the better class of people.

You have a fair share of self-esteem. You appreciate your own worth and talent, have a desire to carry yourself in an influential way. With your large brain, you ought to be master of the situation; with that fine quality of organization, and that intuitive sense of truth, your mind ought to be very influential in the community where you live.

You have large social organs. You are fond of children, fond of friends, and very fond of woman; are capable of winning her affection, and of carrying yourself in a way that will be consolidated into abiding affection.

With your large brain and your ample size and weight, you ought to take and maintain an excellent rank. You have body enough to support your brain admirably, and your brain, measuring twenty-three inches, is large, and with



FIG. 3. GENERAL MARSHALL C. WENTWORTH.

You have a great deal of power when you get it aroused, but you are not one of the kind that is quick to wrath, or inclined to wrangle. You have more thoroughness and severity when provoked than you have of the tendency to warm up and take sides.

this fine quality you ought to make for yourself a good name and a good place in the community.

You ought to have studied for a profession. If you had been educated to medicine, you would have made a fine lecturer on the subject. If you had

been educated to law, you could have taken a good rank in that field. If you had been educated for an editor, you would have written vigorous articles, and those which would have an influence in the community.

You have smooth methods. You are capable of taking hold of life by its smooth side, and of commending your-

THE LADY

whose likeness is sent without name, evidently inherits strongly from her father's side. That wideness and strength of face between the eye and the mouth, that height of head from the opening of the ear upward, show that the father's constitution is more



FIG. 4. MRS. M. C. WENTWORTH.

self to the favorable regard of men who have thought, and respectability, and culture.

If we had you back to fifteen, we would say, by all means become a classical scholar, educate yourself as well as may be, and enter one of the learned professions.

largely represented than the mother's. She is a strong character, not naturally so fine in quality as the gentleman, but there is a certain dash and daring, a certain straightforward earnestness which will co-operate with his fineness and susceptibility admirably. Her hair is stronger, her temperament is rather

favorable than otherwise. She has excellent development of the vital and muscular systems. We think she is strong and straightforward, energetic, thorough, enterprising, proud-spirited, ambitious, honest, prompt, practical, a good talker, knows what she is about, balances herself on her own center, and is capable of moving in society with ease and influence. We see nothing in the temperament and constitution, general build of head or expression of face of this lady which would render her otherwise than a good match for the gentleman whose likeness accompanies hers. She is not one of those weak women who need petting and fostering, but she can take hold of duty, and if we may use the term, trot in double harness with her husband, and keep up her end of the even-er, or doubletree. And she is not one of the women that want an advantage, that want a long end of the even-er. She inherits enough from her father naturally, so that she is able to take her position and fill it, and carry her duties strongly and independently, and when she finds out what is the best way to accomplish a desired purpose, she weaves it into her plan, and does not compromise or modify—she doesn't feel the need of protection and support. She could go out into life and earn her living. She could find a place in a store, or in a school, and make her own mark, find a place to work, and make friends, pay for her seat in the church, buy what she needs and pay for it, and carry her head up, and win respectability and confidence.

She is a woman who would be likely to have healthy, vigorous boys, and if they take after her, they will be worth raising. We think, so far as we can judge from the appearance and the temperaments and constitutions of the parties, there would be congeniality, provided, of course, the woman had a fair show. If a man were to undertake to manipulate everything that she had occasion to do, to supervise her in all respects, and try to keep her a kind of underling, she would, perhaps, make it sultry for all the crowd; but, as we said before, if she has her rights and in-

terests and duties, she will fill her station, and fulfill her duties without help, without much assistance or counsel. She is a strong character, and we see no reason why she should not be thoroughly worthy."

BIOGRAPHY.

GENERAL MARSHALL CLARK WENTWORTH, son of William H. H. and Mary (Clark) Wentworth, was born in Jackson, N. H., Aug. 16, 1844. His father was of English and his mother of sturdy Welsh stock. Marshall worked on the farm, and walked four miles and back to attend the public school, but by the aid of his mother, who had been a teacher, he acquired a great desire for knowledge. He was intelligent, alert, keenly attentive to and anxious concerning everything transpiring in the country, and devoured with avidity all information he could secure regarding the great subject which at that period overshadowed all else—the preservation of the Union. April 27, 1861, before he was seventeen years old, he enlisted as a private in the Fifth Maine Volunteer Infantry. This was a fighting regiment, did much active service and won high honors. Marshall was never absent from the regiment during his three years' service, participating in its many memorable engagements. When his term of enlistment expired our soldier re-enlisted, January, 1865, in the First New Jersey Cavalry, and served until June, 1865, the close of the war. At Five Forks he received a wound in the foot from which he still suffers. He had offers of promotion and promise of a commission, but preferred to remain in the ranks with his companions, who said, "A braver soldier never fired a gun."

He returned to Jackson, and married, May 30, 1869, Georgia A., daughter of Captain Joshua and Martha P. (Meserve) Trickey, and here they commenced their long and pleasant career as host and hostess. They worked personally, early and late, taking pleasure in the thought that success must come to honest, well directed labor. Their ambition was to intro-

duce every pleasant and æsthetic feature of home-life into their establishment in such a manner that people of the highest culture would experience delight at finding every want anticipated, and artistic harmony prevailing in their surroundings. They were the originators of the new system of artistic houses, decorations, and effects in mountain hotels, and the lovely village of Wentworth Hall and Cottages at Jackson, N. H., realized their high ideal. In the Winters of 1884, 1885 and 1886, General Wentworth was manager of the Laurel House, Lakewood, N. J., where he made many and permanent friends.

He was quarter-master general on the staff of Governor Charles H. Bell from 1881 to 1883, and a member of the Republican Electoral College in 1884.

He has the superb physique, the courtliness and grace of manner and kindness of heart which were characteristics of his ancestors, possesses a winning magnetism, and is kind and courteous to all; the patron and the servant, the acquaintance and the stranger. He is ever foremost in public improvement, and has an enthusiasm which carries others with him. He was the chief promoter of the centennial celebration of the settlement of the town, and the founder of the public library. The development of his hotel interests has been a wonderful boon to Jackson. With far-seeing sagacity he discerned the opportunity and way, and convinced the most conservative that he was right, and placed the care of guests upon the highest plane. By the enlarged facilities he has given his townsmen, by the employment he affords to hundreds, by his liberal and extensive generosity, he has accomplished much good, and is a public benefactor; by his unvarying courtesy to his guests he has won the title of "prince of landlords." The sunny spirit and practical intelligence of his excellent wife have borne their part in his success and been most important factors in the household economy. Their natural culture has been broadened by extensive travel

in both continents. Their hostelries have been visited by many distinguished and cultivated people, and who comes once will be likely to come again and again.

Desiring something relative to his relations with the hotel "Raymond" at East Pasadena, Cal., I wrote to Gen. Wentworth asking about the facts, and received from him a frank letter from which I make some extracts.

"Mrs. Wentworth is a most extraordinary woman. Her intuitions are remarkable. She appears to know everything that it is necessary for her to know in all times and places intuitively. She has been my guiding star; is brave, honest and true, and never did a thing in her life that she did not believe right and true. I need not tell you about her character, because you know that, having examined her phrenologically. In our business we have worked together, hand in hand, heart to heart, mind to mind. Every success I have attained to and all prosperity which has come to me has been through her.

"In the Autumn of 1891 Mr. Walter Raymond (of the excursion firm of Raymond & Whitcomb), who owns 'The Raymond,' at East Pasadena, Cal., engaged me to manage his hotel for the term of two years at a handsome salary. At the end of the first year he made a contract with me for an additional three years. I take with me to California all my employees, 140 in number. I take them from New England and find it one of the sources of my success. There is no pleasure for Mrs. Wentworth and I except in doing the highest class of work. Keeping a hotel is a high calling. People who travel leave behind them elegant homes, with all that that word means in the way of comforts, decorations, artistic effects, and so forth, and the hotel man who can supply these things to them so that they will not miss them has accomplished a great work."

CHAPTER XXXVII.

CHARACTER STUDIES. No. 4.

BY REV. B. B. TYLER.

YOU have a large head, measuring as it does $23\frac{1}{4}$ inches in circumference and 15 inches from the opening of one ear to that of the other, over the top. We suppose a man who carries a brain as large as that ought to weigh 180 pounds as a rule; as you weigh 175 pounds and are not very tall, we will call it a balance between head and body. The chief temperament in your case is the Vital. The Vital temperament is made up of the nutritive system which manufactures food into sustenance for brain, bone and muscle. There are many persons who lack this temperament, they have not much vitality, they lack power to execute. We once had a man under our hands whose head measured 24 inches and he gave his weight as 125 pounds. He might have been pre-eminent as a bookkeeper, he might have served his day and generation admirably in that business, but he could not stride through the mountains and buy timber by the forty acres to be used in large enterprises. He could not prospect for iron and copper among rugged regions. But he could keep accounts in a rolling mill, in a foundry. The bookkeeper does not care, it makes no difference to him whether it is a trip hammer he is writing about or a bank-note printing press; it is iron in both cases.

Your Motive temperament is fairly developed, you are not lacking in bone or muscle. We judge that you are more like your mother than like your father, because you have comparatively small features. You have a long body which gives room for the Vital apparatus; you have small feet and rather small hands; you sit tall and stand short; these are indications

that a boy resembles his mother. Now with your large active brain and your good body you have a bank of vitality on which you can draw for supplies and your drafts will be fully answered and honored. In other words, when you want to work with the hands or with the brain there is something somewhere that comes to the rescue and brings the steam; it does you good to work, you think it is wholesome.

You have broad cheekbones which indicate large lungs. You have a pretty broad face outward from the mouth which means good digestion; those are a part of the Vital machinery, to make blood and aerate it. You have a fine quality of organization. As I draw my finger carefully across the forehead it seems like satin instead of like canvas. Therefore the quality which you have, and the susceptible nature, as well as the strength of character, show that you are acute as well as masterful. Some men are like a great sledge-hammer, they have wonderful power but they do not do very smooth work.

You have large Perceptive organs which give you the ability to gather knowledge and appreciate its peculiarities. The Perceptive faculties as we study them take into consideration the sample existence of things. One faculty, Individuality, sees things as things, without knowing what they are for, but it recognizes. The organ of Form studies the shape; if it is a rose, an acorn, if it is something long and sharp, something broad and square, Form tells what the thing looks like. Then the faculty of Size takes into account magnitude, weight, bulk, density. Color gives us pleasure in the harmony of beauty, shades and tints. Order comes in and says how the things shall be arranged, sees

(Dictated to a reporter, the subject being a total stranger with no hint as to his name or pursuit.)

the apples on trees and other things on the ground; regulates everything, and expects to find it there when it comes back. Calculation counts, sees the multitude and the infinitesimal. Then Eventuality is well de-

You are a chronological man. You like to hear a man say, "In the year 1833," such a thing happened. If he says it was the 18th of October, it makes it all the better. You are very likely to put the dates in. If you had



FIG. 4.—REV. B. B. TYLER.

veloped, that remembers the history of things. Locality remembers places; where you have been, where you want to go; it is a geographical faculty. No two things occupy the same place at the same time, consequently one must be in one place and another in another place; Locality takes account of it. Time, periodicity, chronology, is another fact of human life; beyond this life if there are no clocks, no sunrise or sunset to keep tally by, we may have an unvarying sweep of light, life and joy, and we will not care to have it cut up into pieces. If we do not need to sleep we shall not need the night. But Time is large in you.

letter-heads you would have printed on them 189 , then you would put the three or the four in when the time came; so your letters would all be dated, whatever else they might contain. These are footprints in the sands of time. You like to fix the day. To you it seems a part of the truth. If a man can say, "On the 6th day of October, 1850, I sailed in the sloop Mary Jane from Boston for New York," you are ready to believe all the rest of the story; if he remembers so much why not all?

You do not like to open a book and have it commence with, "Once upon a time," such a thing happened.

Henry James used to say, "On a sultry Summer afternoon in the month of August, 1837, a solitary horseman might have been seen climbing the western slope of the Alps." When he gets all that fixed, he may imagine as much as he likes afterward, it seems to you as if he knew about it. In other words, you are a statistician, dates, places and time seem to be pleasant to you. An English clergyman will write a letter and date it at such a "Rectory," naming his parish; somehow it looks as if he belonged somewhere. They speak of the Duke of Bedford; that locates him. Now, these things to a person who does not study mind as we do, at first sight, may not seem important; but when we come to take account of what has been, where it happened, by whom it was done, all this data that the Perceptives take in is no mean part of literature and knowledge.

Then your Comparison is large. You compare one fact with another, one thing with another, one man with another; therefore you are a critic. You hold each fact in the thought, and you try it by some yard-stick, some scale of measurement or estimation. If you know what a diamond is, and another stone is presented, you take the diamond for the means of criticism, to see whether the other is a diamond or not. We see the difference between apples; when we want an apple, and it is very important we should have a good one, we take one out of the number one pile; those in number six pile may do for the boys who have but a penny to buy with. They are all apples and may have grown on the same tree, but there is a difference in them; and Comparison takes account of the difference.

You have large Causality. You ask questions, and you do not feel satisfied till they are answered. You make an effort, and you did when you were a child, to tell the why as well as the what. I suppose a milkman's horse knows every house in the whole

row as well as the man does, and he insists upon stopping sometimes after the customer has dropped out; but he does not know what they go there for. The dog also knows all about the what, but he does not know what the transaction is for; the reason he does not get hold of; but he knows the facts and places as well as the master does.

You are a good judge of strangers. You appreciate motive, character, and disposition. You have a sense of what people are; it is instinctive; it is possessed more or less by the lower animals. If a man comes in with a frown on his face, his dog is demure and waits for any orders that may be given. If the man comes in with a smile on his face, the dog smiles too. He knows the mood. I have sometimes thought a dog knows when he is lost and wants a master, which man out of twenty to make up to; he will hit the right one. You have the spirit which leads you to try to make what you say and do acceptable to people; it is the faculty we call Agreeableness. You are not often mistaken in a stranger; then you have the power to make yourself acceptable; and when you are among total strangers it is easy for you to see who would be a pleasant traveling companion, and you would move up and give him a place beside you; and you would find him a delightful person to talk to, and he is pleased also with you.

Benevolence makes you pity a good many people who might think they did not need pity. You pity people because they do not know any better; because they do not behave as well as they should. People may have plenty of money, a good education, and they might wonder why you took the trouble to be sorry for them; but you are sorry for them if there is any reason for it.

Your power to copy, conform, adapt yourself, to do as others do, is well marked. You could go to Spain, or any other foreign country, and learn

readily to do as well-behaved people there do. You would take on their ways of expressing astonishment by shrugging the shoulders, lifting the eyebrows; you would do it unconsciously. Imitation is an educator. A little girl watches to see how her mother handles the baby, and she goes through the same ceremonies with her doll. A boy watches to see his father drive the horses, and he takes two chairs and harnesses them and plays horse; and the mimic method he adopts is the fun of it; and in that way he learns to do the work of life.

You have a good development of Hope, and are inclined to look on the favorable side. If people come to you with their troubles and feel that their prospects are dark, their hearts are almost broken, you have something like this to say to them: "It is always the darkest just before day." 'It is a long road that has no turning.' You would have some comforting words to make a person feel that they were not clean gone to despair. In regard to your own affairs, you shake off trouble a little as a bird shakes off the rain, so it will not soak in.

Conscientiousness renders your mind firm in its sense of righteousness. You believe in duty and obligation. If you give a person to understand that you think this or that, that you approve or sustain any line of action that is under discussion, you feel in duty bound to do so, especially if it comes to grief and somebody loses. You probably in your time have offered to pay in such cases, where a man had lost by acting upon your advice or approval. He might have said when you offered to pay it, "Oh, no; I was not obliged to take your suggestion; you were honest in it; I do not blame you." But you would feel as if you ought to pay it; and if you were wealthy you would always insist upon doing it; so nobody could ever say that you had ever taken tacitly responsibility, then slipped out from under it.

You would wield justice if you were on the bench, but you would temper it with mercy. You would sometimes suspend judgment and give a boy who ought to know better and do better a chance to try again; by suspending his sentence you would give him an opportunity to reform, but it would be with the understanding he could be called in again for this at any time. If people will try to do right hereafter you will try to forgive them for the past; but you feel the full weight and enormity of whatever is wrong in others as well as in yourself.

Your Self-esteem is not quite as large as I would model it if I could. If you had a little more of that calm, cool selfhood that can rise above criticism and censure and not suffer too much I would give it to you. You are more sensitive about what people think, say and feel relative to you than most men. You do not want a child to move away from you, as much as to say, "I do not know about it." If a dog acted as if he were afraid of you you would wonder if you had made a motion that made the dog think you were ready to strike him or kick him. If you became vexed with your horse and gave him one or two sharp cuts with the whip, and found out afterward his harness was tangled in some way and that he was not to blame for not responding, you would feel conscience smitten; then your Approbativeness would come in and you would feel that you must apologize to the horse; so you would get out of the wagon, fix the harness and pat the horse till he felt that his master was really his friend; then you would get into the wagon when it was settled and go on your way rejoicing. To be approved is a great fact for you. If you had a little more Self-esteem it would be better for you. I think it has grown, responsibility has probably developed it; but all your life you have been a little short on that, the power to assume or adopt a mandatory method when it is required.

You sometimes take a soft method of righting wrongs when a mandatory, stern method would be a means of grace to the other man, and easier for yourself if you had the material to work out in that way. You have the organs which give force, economy, prudence, ingenuity and taste well developed. Combativeness and Destructiveness give people the courage to meet difficulty, and severity to punish that which deserves it, and to control affairs though others may have to suffer. For example, Destructiveness is necessary in the dentist though he may be gentle, polite and kind. He may tell a little boy when he gets fairly hold of a tooth that he will not pull it till he gives him notice, he only wants to see how it is; he need not be afraid that he will pull it till he gives him notice; and when he is ready, he says: "Now," and he gives the boy a slap on the shoulder at the same time, and that shock is a part of the general shock and the boy does not know the tooth is out. That is merciful severity. A surgeon has occasion to do the same thing sometimes. We are obliged to do some things that give our children pain sometimes as a means of reformation. I suppose when a person sends a child into a dark room because he is in discredit the parent may suffer more than the child. A man or woman who has Destructiveness and Conscientiousness will have a steady hand in the administration of righteous judgment, even though the sympathies and affections may pull the other way. "Whom he loveth he chasteneth and scourges every one whom he receiveth."

If you had been trained as a business man you would have been very efficient; you would have been thorough and earnest in starting for the field of work, and you would have pushed the cause you had in hand. You would not get tired as soon as most men; as long as something remained to be done you would feel the

strength requisite to do it; but when you got through and had reached home, taken your seat at the table, you might feel hardly able to replenish the inner man. In other words, you have the energy to work up all your steam when the occasion demands it; therefore you are a good worker, a willing worker.

You have the elements of economy, financial wisdom. You could manage to get a good deal of comfort out of a small income. You could manage to make a small, poor farm do more to support a little family than most men who are blessed with such an inheritance. If you were used to farming you would mow closely and rake cleanly; but you would not rake the hay for yourself to eat; you would want a tight roof to keep it nicely till cold zero weather had come, then every spear of grass so saved would be carefully and generously fed to the hungry stock waiting for it. You economize that you may have wherewith to give.

You have large Constructiveness. You would have made a good mechanic if you had been trained to it; a good engineer. You take an interest in what people are doing. If they are sinking great flat stones twenty feet below the surface of the street on which to build piers to put a ten-story house on, you like to watch them; you appreciate the durability of such a structure; and when you see the building after it is finished you know what it is built upon. You enjoy music. You enjoy mirth. You appreciate your food. You enjoy physical life better than most men do. You enjoy society. You are an ardent lover. You are fond of pets. You are a good friend. You put your palm into that of another man and look him in the eye as if you felt he was a brother beloved. You can impress people who are not related to you with the feeling that you are nearer to them than most men are. Some men shake hands with us as if the hand were a wet rope, and we do not adhere to them except with aversion. The fam-

ily circle like you. You are welcome to your young people, and though your hair is white people do not think that you are old; and when you have lived twenty years longer, if you maintain your health, you will have an enthusiasm that will make people feel that you are not as old as other men of the same age. You get this from your mother, the vitality, the mirthfulness, the sympathy, the affection, the friendship and the domesticity, and probably you get your economy from her. I think her bureau drawers were full of rolls of linen and cotton cloth that might be wanted in the neighborhood somewhere in the case of sickness if not in the house at home. The poor people missed her when she got through; the rich could do without her, they would mourn in the abstract, they would not mourn as the poor would.

You ought to be a man who can be useful. I can hardly think of a place that an organization like yours could not go into and fill well. If you were at the wheel of a ship in a storm, and knew how, you would hold out well. If you were a quarryman the granite would seem more lenient under your blows than under some lighter ones. You might have been a good builder, a good architect. You have such an admiration for a house that is contrived to be handy and convenient and solid, you cannot help studying architecture when you are in a house that is well appointed.

You are not a stranger a great while to people who might be acquainted with you. You are approachable, available, you can make yourself useful to most people. You would do well in literature. You would do decidedly well in science, you would make an impulsive and earnest speaker. You would never induce an audience to feel that you were a kind of a professional saint at a distance admonishing another class of beings. They would think you were an elder brother who had come

to help them. You would be more acceptable to people than you would if you had a high crown of head, a hard physiognomy, and said things in a more mandatory way.

You are a clear thinker, an accurate and definite writer. You would do well in the lecture room, at the bar, in the pulpit or in the school room. Your earnestness of character would back up your intellectual work.

BIOGRAPHY.

BENJAMIN BUSHROD TYLER was born near Decatur, Ill., April 9, 1840. His parents were native Kentuckians, the father tracing his ancestry to England and the mother to Ireland. The religious training of both was according to the theology of the Presbyterian Church; but in early life they united with the Baptists in Kentucky, and Mr. Tyler was ordained to the Gospel ministry by the Baptist Church, in Fayette County.

The Tylers left Kentucky at an early day, and located in Sangamon County, Ill.

Under most favorable domestic influences the subject of this notice was reared in early life, and at the age of nineteen years, under the instruction of his father, he was induced to become a Christian, and was accordingly baptized by him in the Sangamon River on Aug. 1, 1859. Young Tyler immediately turned his attention to acquiring an education for the Gospel ministry, and entered Eureka College, Illinois, the following month. He had spent two years at the college, when the war of the Rebellion broke out, and it became necessary that he should leave school and turn his attention to some means by which he might accumulate funds, and so return to college. But he never returned. His marked ability in persuading men to become Christians was immediately so apparent that his brethren generally decided that the education he had already received, in view of the constant success attend-

ing his ministrations, was sufficient for an introduction to the life work for which he seemed specially adapted; and accordingly, on Sept. 4, 1861, at the State Convention of Disciples at Eureka, the young man was regularly ordained to the Gospel ministry.

In December, 1862, Mr. Tyler was married to Miss Sarah A. Burton, the daughter of a prosperous merchant in Eureka. Of this alliance he says: "A better wife a preacher never had."

In 1864, Mr. Tyler was engaged as pastor of a church in Charleston, Coles County, Ill. In 1868 Mr. and Mrs. Tyler made a tour through the Eastern States occupying four months.

In 1869 Mr. Tyler located at Terre Haute, Ind., and continued until 1872, when Mrs. Tyler's failing health suggested the propriety of going South; hence, in that year on the first of May, he commenced his labors in Frankfort, Ky., continuing in this work until April, 1876, when he was called to the First Christian Church, Louisville, Ky. The pastor's work here, during the six years he remained with it, was, by reason of heavy mortgages on its property, largely of a business character.

After Mr. Tyler's resignation of the pastorate in Louisville, he made a visit in May, 1882, to the Church of Disciples, then located on Twenty-eighth street, New York, and subsequently accepted an invitation to become the pastor. Consequently, the Twenty-eighth street property was sold and a new and better located edifice was

erected on West Fifty-sixth street, near Eighth avenue. This was completed and occupied in 1883, since which time to the present Mr. Tyler has been the pastor. The title D.D. was conferred on him in 1892, by Drake University, located at Des Moines, Iowa.

Dr. Tyler has for years been the regular correspondent of the *Christian Standard*, published at Cincinnati. He is also a member of the International Sunday School Lesson Committee. He is prominent among the leaders of the Christian Endeavor work, is a member of the Board of Managers of the American Bible Society, and of its Committee on Versions. He is president of the Chautauqua Union of New York city.

Dr. Tyler's natural endowments for his life work have been ample. In physical proportions he is about 5 feet 9 inches high and weighs 180 pounds. His voice is of great power and he controls its wide compass with excellent skill, suiting its inflections judiciously to the nature of his theme, and uttering every articulation with great distinctness but with little apparent effort, so that one seldom tires in listening.

It is only on extraordinary occasions that any manuscript is before him—he is fluent in the use of language, and often excites strong emotional contrasts in his audience by translations from the gay and humorous to the sober and serious in his own sympathies. Under his pulpit ministrations in New York it is seldom that a week passes without additions to the membership of the church.

M. C. T.

CHAPTER XXXVIII.

CHARACTER STUDIES. No. 5.

FRANCIS MARION COOPER, M.D.

YOU have a tendency to be mental in your make-up. You have a delicate organization and capacity for thought and sentiment and sympathy, rather than physical power. Your temperament is first Mental in a high degree, with a fair share of the Motive Temperament. You need more of what we call the Vital, nutritive system, to give you bodily vigor and stamina. We find men who have brawny muscles and stout frames, who are very broad in the back and also broad in the cheeks, and who have a strong and intense bony structure. Your organization is of the lighter type. We see the Percheron horse, sturdy, strong, slow, heavy and enduring; the lighter animals in that great family are slim, alert, sensitive, susceptible and speedy. You are more like the quick horse that takes the light wagon and makes rapid progress.

The upper section of your head is strongly marked; your life finds its chief outlet or source of power in the higher intellectual facilities, and in those which constitute the æsthetical and take into account the realm of imagination and beauty and wit, prudence, morality, dignity and ambition. You enjoy the sublime and the grand, and are sensitive to all that is delicate and harmonious and elegant. And it is as natural for you to ignore and repudiate the rude, boisterous and rough in manner and usage as it is for a well-kept greyhound to leap out of a circle of muddy mastiffs, and thus clear himself of bad company. You have often wondered, when you have seen men enjoying what they call sport and amusement, to see how rude and base and low their tastes and desires are. Even in the selection and use of their

food they are coarse and groveling and sensual. Your interest in food would find the channel of gratification in the use of that which is delicate and fine with less of it, such as venison steaks rather than the over-fatted beef or pork that is coarse-grained, gross and tough. Your temperament reminds us more of rosewood than it does of oak. The fiber is finer; the susceptibility is more delicate than we ordinarily find; in fact, if you had more of the Vital Temperament, if you had a larger amount of nutritive power, so that you could broaden out and take on bulk and momentum, and thus your large and active brain could be sustained and nourished amply by more of the Vital Temperament; in other words, by a better stomach and a better pair of lungs, life to you would be broader, perhaps not so high, and probably more intense, because you would still retain your excellent mental make-up, and all it needs is the Vital to give it adequate support. Your type of temperament is a little like the steel that constitutes the cutting edge of an axe, which alone is too light to fell the forests, and it needs the Vital Temperament to give it backing, just as the steel edge of the axe needs the three pounds of iron behind it to give it momentum. It does not add sharpness to the axe; it simply adds momentum to make the sharpness effective.

You ought to be known mentally for strong Causality and Comparison; these give you the tendency to analyze whatever is before you, and also the tendency to synthesize and put together facts and principles and comprehend their laws and relations; while the large Comparison gives you power of discrimination and criticism.

You have large Mirthfulness which renders your mind wakeful to all that is witty and worthy of being cherished and retained. It is not the rough, low sport that roars and rejoices in the coarse, but it is rather that sense of the brilliant and the scintillating which gleams and is full of beauty and brightness but does not descend to coarseness.

Your Ideality gives you a poetic sense; you have not quite enough of the Perceptive intellect to make it easy and natural for you to gather statistics and to put facts into rhythmic form. You appreciate poetry better than you could concoct it. You have the sentiment but not the manipulating faculties that measure it and organize it.

Your Constructiveness is large in the sense of invention and imagination, rather than in the sense of mechanical, practical skill. You have the faculties which would enable you to get a general idea of what you wanted, and let some skillful mechanic take your thoughts and realize them in forms. And when he got it realized to his comprehension, when he got it builded, you could then see where it might be improved; and the second one he would make better than he would the first. Your language is more compact and accurate than it is voluminous. Your sense of Tune seems to be rather strong, a feeling that lifts your thought up into the realm of the harmonies of sweet sounds; and your appreciation of time as connected with music will be better than in connection with dates and the incidents of life.

You appreciate the good things of the table, are prompt to recognize fine flavors and odors; and if you had occasion to relate yourself to food products and culinary matters, you would be a good guide and supervisor of whatever belongs to the table comforts.

Your back head is strong. You have large Self-esteem, which gives you dignity. You may not be domi-

nating; you will quietly manage to work things to suit you and as they ought to be. You have a good degree of Continuity; hence there is an intensity of feeling and purpose in the planning and executing of that which is needful. You are fond of home and home associations, and it would be a pleasure and pride to you to make a nice home. You would make a place homelike for others; if you were keeper of a hotel, you would manage to keep the house in such a way that people would think it was a good place to stop at. You express and manifest a friendly sympathy to an extent that would lead people to feel that you felt an interest in their welfare and were trying to do everything to make their time and their stay acceptable. And if you kept a mountain summer resort, or a watering-place resort for pleasure seekers to go, they would stay with you longer than they anticipated. They would propose to stay four days, and stay fourteen, because of your tendency to make it friendly and homelike.

Your fondness for children would make the little ones cluster around you and come to your companionship.

You love life, and are inclined to hold on and prolong it; for a man with a delicate structure like yours, you are likely to live to a longer age than most men who are stronger absolutely. The feeling that life is worth having leads one to be tenacious in respect to it.

You have strong Acquisitiveness, the desire for property, the tendency to look out for whatever belongs to your rights and interests in that respect and not have them overlooked and forgotten.

You have Secretiveness enough to conceal that which it is not best to express, and to be judicious in your statements and in your dealings with mankind. You sometimes say nothing and look interested and bow your head to the recognition of what people are saying without responding to

it or committing yourself; and if they ask you what you think about it, you say, "We will talk about that after I have thought about it a little more;"

tastes and spirit by taking men as they are and adapting yourself, as far as you may, to each man and not contradicting where it is not necessary



FIG. . FRANCIS MARION COOPER, M.D.

and perhaps they will never renew the conversation, though you are ready to talk about it, but not particularly anxious to do so. You could keep on good terms with men who were of diverse dispositions and diverse

You do not break with them or have a controversy. And, although you may be firm and even headstrong in your wishes and will, you do not generally allow your personal opinions to controvert the opinions and purposes

of others, unless duty absolutely demands it. And so you could have customers, if you were a professional man or a dealer in goods, of every shade of political opinion, and you would not be ventilating your political opinions in such a way as to prevent a man from buying a bushel of salt of you or ten yards of cloth if he could do it and you had it suitable for his wants; but you would join the church that you preferred, you would vote with the party that you approved, you would subscribe for and read the paper that you believed in; you might subscribe for other papers; but your opinions, political, religious and scientific, are your own; and, at the same time, you carry yourself and your opinions in such a way as not to make war upon other people.

When we come to take hold of the higher elements, your Conscientiousness is one of the corner-stones of character; you love the truth because it is true; and you feel conscientiously bound to do whatever is right and to avoid whatever is wrong; but you are not so much inclined to harass other people who do not want to agree with you as many whom you meet with. And while your Firmness is uncommonly strong, your Conscience and Caution, located in the neighborhood of Firmness, aid you greatly in sustaining your opinions and holding yourself calm and serene, even in the midst of the "contradiction of sinners." And we can fancy we see you following a line of business with men who differ with each other as widely as men can differ and be peaceful. Your eyes will snap and you will attend to your business and hear what they say and smile occasionally and let the thing go off by default; it is not your argument; you are not involved in it, nor do you chip in nor talk about it with them; and if a man should ask your opinion, you would say, "I have as much as I can do to take care of that which I am responsible for; we shall not quarrel about what we think; we will vote as we please, and we will

go to church where we please, and it is nobody's business outside of ours;" and a man will say, "Yes, that's so." And thus you would evade it, though you would not shirk to state and defend opinion if necessary. But we are speaking of a man being in a position where it is not necessary. Suppose you were visiting as a physician from house to house, you would not bring your altar of worship into conflict with the necessities and duties of daily life; and you would try to carry yourself towards those whose opinions differ from yours in such a way that they would feel that you were simply a physician or you were simply a merchant, or you were a tailor making clothes for them; you would fit your enemies just as well as you would your friends, and be as happy when you had done it up properly, because that is a transaction by itself. And while you are not indifferent, you have the reticence and the prudence and the self-respect to hold yourself aloof from whatever is another man's quarrel, and not let these incidental and collateral opinions stand in the way of your being a good neighbor and a good friend. And yet you select your friends, and select the persons that you wish to talk with, who will blend with you and harmonize nicely; but you do not let people pick your pocket nor pick your conscience, nor pick your knowledge and your private opinions. Some people carry their opinions "on their sleeves for daws to peck at." If men put their ten dollar bills on their sleeves, sometimes they might get lost.

A man whom we would not vote for may be a good neighbor, may be a good friend, may be a good parent, may be a good workman, may be honest and true, but he may have opinions that we think in government matters are not as wise as those that we approve. So we will work against the opinions, not against the man.

What you need most is an increased development of the faculties that be-

long to the lower range of intellectual organs, the perceptive. If your Perceptives were larger, your eyes would be broader apart, and the lower part of your forehead would be more arched and heavy, and it would be easier for you to gather in the incidental facts of life, and hold in ready possession for use, the knowledge you have. As it is now, you follow the principle, rather than detail; you follow ideas, rather than specific lines of thought and effort. And in taking care of practical matters, you have to systemize, theorize, and get the right way, and then try to carry it out and make it your own affair. It is not so easy for you to adapt yourself to incidental conditions as it is for a man who is large across the lower part of the forehead.

You have large Imitation, which gives you the tendency to copy and conform, to adapt yourself to circumstances, to do as other people do, as far as you can conscientiously.

You have large Human Nature; you judge of character well, and hence are rarely mistaken in reference to persons who are in your presence for the first time. Consequently, when you meet strangers and see in them worth and talent, you would take the initiative in getting acquainted with them, and they feel that you have somehow selected them from a preference you had; and they will respond to you with the cordiality that is befitting the occasion; you do not stand off, love and admire persons at a distance, and let them break the ice. If you conceived a strong and approving opinion in favor of the persons, you are apt to take the initiative and lead in forming friendship. If you do not so regard them it takes a good deal of their presence and their good works, and their kindly manifestations to make your mind seem mellow and pliable and conformatory; but you do not need any persuading, you need no crowding where you instinctively see that people are worthy of all the respect you can bestow.

You have large Spirituality; that gives you the inventive tendency, a tendency to take up new things if they are worthy; you do not get so hide-bound in reference to old usages and methods as to keep you from seeing the worth and merit of something that you never heard of before. And in regard to inventions and improvements, you keep your mind open to conviction, ready to listen and investigate and to appreciate and approve whenever there is something to be approved. But you are not very likely to get drawn into the approval of that which is a sham in any type of subject. In a good many things you stand aloof, because you have not yet got the facts on which to form a sound opinion; it may take you a little longer to form opinions on some subjects or topics than it does most men; where the Perceptive organs are the means of information you are slower in getting it than you are where the intuitions and the moral sentiments come in.

Yours is a strong character; it has force and thoroughness and courage; it has prudence and guardedness and policy; it has economy and invention; it has wit and humor; it has taste and refinement; it has logical and analytical power and strong moral sentiment; and your affections towards those that you like draw you very near to them, and you make friends that will stand by you to the last.

I would give you the hygienic conditions that belong to the upbuilding of body, such, for instance, as the wearing of boots to keep the cold air from chilling the blood as it goes through the ankles to the feet in cold weather. If you wear boots the space that you would have around the ankle bone being filled with warm air would keep the blood warm, and the free circulation would keep the head cool, and be likely to enhance your weight and build up your nutritive system. Then the diet should be simple and nutritious, studying carefully to avoid extra amounts of

carbonaceous material, which the system cannot properly convert. Wheat, in its entirety, oatmeal, milk of the best sort without skimming or without diluting; and if I had to be responsible for your health I would make sugar a scarce article of use with you; nor would I permit the use of much butter, or what they call superfine bread; nor would I load you with fat meats; I would give you a luscious tender steak and stew, with the greasy part excluded. And I would recommend to you in the eating of starch bearing material that you manipulate it in the mouth long enough to saturate it with saliva, so as to secure the digestion of the starch, as hundreds of people have dyspepsia and suffer from it needlessly for years just from a lack of this precaution; and I would expect improvement in your weight and strength.

Dr. F. M. Cooper, the subject of the foregoing sketch, is a well-known physician, who conducts a sanitarium at Emporia, Kansas. He treats all chronic diseases, and has had a great deal of success in orificial surgery. He also employs many valuable hygienic agencies, such as electricity, magnetism, massage, and various forms of baths. He is not a one-sided man, as is the case with so many of his profession. He believes in combining philosophy with science, and nature with art. He has attracted considerable attention in several states adjoining his own, and has won his reputation so largely as a result of honesty in purpose and intelligence in method, that we take pleasure in presenting him to our readers as a phrenological study. Dr. Cooper has diplomas from several medical colleges, and is a graduate of the American Institute of Phrenology.

CHAPTER XXXIX.

CHARACTER STUDIES. No. 6.

LUCY STONE.

THIS woman was one of the most earnest, single-minded and direct of personalities. The very thought of righteousness and duty was part of her make-up, and when she, hungry for education, heard that her brother could go to college, but she could not, it suggested the question, "Why not?" She found herself struggling against a public sentiment, on whose current she might float, but which she could not stem or conquer. Then she turned within and summoned every element of faith, hope, courage, persistency and intensity, which belonged to her character, and it was made up largely of these elements, and resolved that she would overcome the difficulty, she would master the situation. But, in her native place, Massachusetts, the opportunities for a collegiate education for women were not provided for one who was born as early as 1818. Three-quarters of a century have

since changed many things for the better.

She had but one purpose—to know something—if possible to know as much as her brother had a right and an opportunity to learn. But she had to go to a Western State, where people were less ruled by past ideas, and where newer, braver and more radical opinions prevailed than in Massachusetts. Why could she not have lived six weeks longer than to October 18, 1893, until classic Harvard had opened its doors fully to women "on golden hinges moving."

At Oberlin, Ohio, she found a college, half a century ago, that would take a woman and educate her. It was a struggle for her to subsist, but she made her mark from the very day she entered. *Excelsior!* was her brave motto, and she vindicated it. She was among the earliest college-bred women in the country, and was one of their earliest platform speakers, working

with such advocates of human liberty as Garrison, Phillips, Whittier, May, Pillsbury and Foster; her voice was heard with no uncertain sound. That a woman should make a public oration, that she should dare to advocate on the platform any cause which had in it the flavor of legislative government was a disgrace if not a crime.

In those early days I have seen her, a slight, short figure, bravely standing before a congregation, which felt more curiosity and prejudice than sympathy for her, but every word seemed like a cannon shot, solid, uncompromising, efficient, hitting the mark without apology and without abatement. She had the faculty of thinking compactly, reasoning closely, and of stating the truth as she understood it without wavering and without fear. Her career is widely and well known; those who have had the rare pleasure of her personal acquaintance will, without a dissenting voice, say of her that she was one of the most thoroughly unswerving persons they ever knew in the line of conduct and purpose in the maintenance of opinions which she deemed essential to the happiness of any class of people, especially the downtrodden, the neglected and oppressed. Her utterances in those early days were not popular. Many regarded her as a usurper of prerogatives that did not belong to her. She was called a crank, a disturber and a fanatic, but she lived long enough to see progress made in reforms which were dear to her; and when she adopted the Woman Suffrage question, in 1853, it looked as discouraging and as unpromising as the other causes she had advocated successfully, and which have succeeded in the face of every difficulty. Denied a college education in 1841 in her native State one now has to consider and count the number of colleges devoted to woman exclusively, or open alike to her and to men.

Now, the question is pertinent, What conditions, mental and physical, embodied in the personality of Lucy

Stone gave her such power to make unpopular truths respected? If the reader will study this face, head and temperament, he will find well set and earnest features; the face does not look pinched and thin and puny and pale, but it looks honest, firm, thorough, staunch and self-possessed. The eye is clear and steady; the face is broad outward from the nose, showing a healthy lung power and vitality. The chin is well set; the upper lip is firm and definite. The signs which physiognomy give to Friendship in the face are very strong, and also the signs of integrity, love of truth for its own sake. In phrenological language, we say, she had a good Vital temperament, the faculty of converting food into nutrition and into brain power and life; and but for a local trouble, she would probably have lived ten years longer, and an intellect such as hers, like a lighthouse on the midnight coast, would have continued a beacon for the mariners on the stormy sea of progress and reform.

Her head was broad above and about the ears, and there were in that development elements of long life, hardihood and endurance. She had a solid, substantial constitution, and a tendency to sustain it in the normal way. She appears to have had rather large Acquisitiveness, which gave her a sense of value and economy, so that whatever had value must be acquired and so administered as to be of service to somebody or something which was sentient and needful. The faculty of Destructiveness was well developed and served to awaken in her that steady strength and courage, that unwavering stability of purpose, that special kind of moral hardihood which leads a person to think and to say, "Let justice be done though the heavens fall;" but such a person is likely to think justice will not induce heaven to fall, but rather that injustice will call down condemnation.

Secretiveness gave her a judicious way of managing affairs, and of using effectively her power and influence;

truths that ought to be uttered were frankly proclaimed; those that were not yet ready for utterance she could

any woman that ever lived. Men would listen to her arguments and her indictments of organized public



LUCY STONE (BLACKWELL).

suppress. For instance, she could conceal her discouragements; she could seem to make light of that which was not promising, and had the spirit which said "Though he slay me, yet will I trust in Him." She had perhaps as good courage as

crime, and though they did not accept and follow her counsels, they would talk it over when they got away, and say, "Well, she is the pluckiest little human being I ever saw."

She had very large Benevolence, which made her generous and self-

sacrificing, and was one of the reasons why she felt in respect to a cause she loved like saying, with William Lloyd Garrison, "I will not excuse; I will not equivocate; I will not retreat a single inch, and I will be heard." But the inspiration of such a declaration in him and in her would be through sympathy for people suffering a wrong. And the power to utter it would come from the strong middle lobe of the brain, Destructiveness, Combativeness and Firmness. She appears from the picture to have had strong Veneration, as well as Firmness and Benevolence. The middle line of the top head was well elevated. Her Conscientiousness was evidently strong, and she had rather large Caution. Her courage took care of her, and her Caution was exercised in considering the evils that people were suffering and which she wished to mitigate. She was anxious and fearful for others, not for herself. She was unvarying in her friendly regard; her affections once enlisted were ever alive. She had comparatively little of mere suavity. If, from a sympathetic feeling she were led to utter a truth in a softer form than Conscience and Causality could approve, she would restate it in a way too definite and too fervent to be misunderstood.

She had a good development of Constructiveness, and that gave her a tendency to devise ways and means, to frame statements on paper or orally in such a way as to reach the right results. She would have made a good business woman if she had been devoted to trade or manufactures and to the employment of help and dealing with people at large. She would have had a good reputation for integrity, and for efficient and well directed effort. She had an inclination to systemize her work, and a good memory of what she had done, of what she wanted to do and the means by which she should accomplish the work.

Her Language was excellent; she talked well, but cared more for the

strength of her utterances than for the smoothness and elegance of the diction. People who listen to a plain exposition of their faults and improprieties feel scathed and scarified by the truth, and are apt to recoil upon the speaker and say that he is a scold. Wendell Phillips was called a scold because he spoke the truth plainly as he understood it, in a very direct way; and he had a masterly power of statement, yet his language was polished and his arguments incisive. Garrison, Foster, Pillsbury, Susan B. Anthony and Lucy Stone were often so accused by such people; their themes were not popular and did not cater to a lax and guilty public conscience.

A portrait of her is before us without a cap, showing the head was high from the opening of the ears, that Firmness was one of her strongest qualities, and her Conscientiousness is nestled up towards the center of the head working with Firmness and Self-esteem. Her Conscience did not settle down next to Cautiousness, as we sometimes find it in heads, as if Conscience were taking counsel of fear. Her question would be, "What is right? What is true? What is needful?" Her Hope was well developed and she expected success. Spirituality was not so strong. Hence she had an expectation of desired results, not so much through faith as through a consciousness that the object of pursuit was right and ought to and must finally triumph.

Another of her strong traits was Human Nature, which is shown by an elevation of the forehead just where the parting of the hair comes; the distance from the opening of the ear to that point was long; consequently she had the intuitive sense of character, motive, purpose; she appreciated an individual's personality, his integrity, his desire for truth and his disposition to be right or otherwise, and was rarely mistaken in her judgment of persons. She had Continuity strongly marked; was not in-

clined to drop what needed to be attended to for something else, but to follow out faithfully a line of effort that promised success, even though it were a long and weary way to reach it. Her Approbativeness worked with her Self-esteem, Firmness and Conscience. She had a desire to triumph in what she did, but had less vanity or sensitiveness of spirit in regard to the disapproval of those whom she considered to be in the wrong, and she would pity people who could not or would not see the truth as it appeared to her.

She had large Vitativeness, and therefore a strong hold on life; and few persons of her weight were able to think as earnestly and continuously or achieve results that required such tenacity of strength and endurance.

That is a wonderfully strong face, full of vitality and vim; it looks courageous and calmly brave, yet there is not a sour expression in it. There is a cheerful confidence, a steady self-reliance, which expects success according to correct means, and that does not seek to accomplish right results by tricky methods. There are few persons whose general conversation is more clearly definite and unwavering than was hers; she talked in straight lines. There was no hypocrisy in her make-up. She had a calm, soft eye, but an honest, earnest one. Her Benevolence, Reverence, Firmness or Steadfastness were decidedly strong and she had the sublime courage of her convictions.

She had a sisterly tenderness, a motherly spirit and a strong conjugal love. Wifehood and motherhood, friendship and affection were marked characteristics, and her love of home amounted to patriotism. It was not merely the habitation where she dwelt but the state and the nation she loved and sought to benefit. Her face had a wholesome, contented, healthy look, and was singularly free from marks of age. Most people at seventy-five years of age would show lines deep and numerous.

A loving biographer, speaking of her death, says: "The gentlest and most heroic of women has passed away. A woman who, in her whole character and life, most fully embodied the highest conceptions as daughter, sister, wife, mother, friend, citizen, no longer lives to disarm prejudice and convert even opposition into advocacy. For seventy-five years Lucy Stone spent her life for others."

Stanton broke the silence at Lincoln's bedside when he had breathed his last by saying, "He now belongs to the ages."

To conclude our notice of this interesting and remarkable person we append an article by her husband, which appeared in her paper, the *Woman's Journal*, of Oct. 28th, 1893:

LUCY STONE'S LIFE WORK.

From a half century of unremitting, heroic labor, it is difficult to select. But perhaps the three most salient points in Mrs. Stone's life work were:

1. Her wonderful series of lectures, which began in 1847 on her return from Oberlin College, in the church of her brother, Rev. William B. Stone, at Gardner, Mass., and continued with unabated vigor until the birth of her daughter in 1857. This earlier work culminated in the calling of the first National Woman's Rights' Conventions ever held, the great meetings of 1850 and 1851, in Worcester, Mass. These attracted public attention throughout the entire country, and the report of the convention of 1850 inspired Mrs. John Stuart Mill to write her remarkable article in *The Westminster Review*, on the Enfranchisement of Women, which started the agitation in Great Britain, resulting in the establishment, in 1869, of municipal woman suffrage in England. The National Woman's Rights' Conventions from 1850 to 1855 were mainly organized by Lucy Stone, and their proceedings were annually pub-

lished by her in pamphlet form at her own expense.

2. The calling of the convention, in 1869, in Cleveland, Ohio, which resulted in the formation of the American Woman Suffrage Association.

3. The establishment of the *Woman's Journal*, Jan. 1, 1870, in co-operation with Mrs. Mary A. Livermore as managing editor, and with William Lloyd Garrison, Mrs. Julia Ward Howe, Lucy Stone, and T. W. Higginson as editorial contributors.

In addition to these were her work during the campaigns for the woman suffrage amendments in Kansas, Vermont, Michigan, Nebraska, Colorado and Rhode Island; her participation, from 1853 on, in the annual hearings before the Legislatures of Massachusetts and other States; her active part in the preparation of the annual meetings of the American Woman Suffrage Association for nearly twenty years; her contributions to the newspapers; her editorial writing for the *Woman's Journal* which continued

until within about a month of her death; her work in the New England Woman Suffrage Association, of which she was for years the president, and in the Massachusetts Woman Suffrage Association, where she always took the laboring oar; a correspondence which extended over the whole country and taxed her strength to the utmost; and the public speaking before all sorts of gatherings, which continued till within a few months of her death. Few realized how much speaking she did. She was in receipt of continual calls to present her special subject before women's clubs and other bodies; and even up to the last year of her life, few of the younger women in her State spoke so often on the woman question. Until her last illness she hardly knew a day of uninterrupted leisure. In addition to all this public work, she was the best of housekeepers, mothers, and wives—the presiding genius of a hospitable home, which her death has left desolate.

H. B. B.

CHAPTER XL.

CHARACTER STUDIES No. 7.

PHRENOLOGICAL CHARACTER OF MARSHALL P. WILDER.

IT is but proper to say that the following description was dictated while Mr. Wilder was a stranger to the examiner, he never having seen him before or heard him speak.

Your head, measuring $22\frac{1}{4}$ by 14 inches, is large enough for a man whose weight turns the scales at 155 pounds, fifty-three pounds more than you weigh; and with this large head you need to take excellent care of your constitution, by avoiding everything that is unfavorable and by adopting a course of life that will be best calculated to give adequate support to the brain.

You have a strongly marked mental temperament, with a touch of what used to be called the Bilious temperament, now called the Motive temperament. You have intensity of power

and feeling, and for your weight you are remarkably strong, and you could walk with less fatigue than most persons under the circumstances. There are some people who are soft, mellow and pliable and they are easily fatigued, there is no grip and not much grit in their make up. When you are excited and your feelings are so awakened that you are in earnest about a thing, you talk in such a manner that you can make your feelings felt, and you can make others feel that it is their duty to do as you think and say; and if you had the right to command men you would be a wonderful man to govern people, not by physical power, that does not govern very widely anywhere, but there are men whose word is law, their expressed wish is equivalent

to a command, and then there are other people who will fret and fume, but children and even horses and dogs do not pretend to obey them; but people have a tendency to obey you, because you have an uncommon degree of Firmness, and when you think a course is right and wish to accomplish a certain thing, you exert a magnetic influence over people, and they incline to obey your requests as if they were commands—as if you had a right to make them. You have rather large Self-esteem, hence you are independent, you rise above the caprices and the undue claims of the public, and feel that you are superior and worthy of respect, and people do not feel that you can be waved aside and set back as though you were of no account. You have large Approbateness, you highly enjoy the approval of others, and are sensitive to the good will of those whose good will is worth having. You are strong in Conscientiousness, you feel in duty bound to be true and that your engagements are binding, and when you promise to be somewhere or to do something, you feel that you are bound soul and body to the promise. You have large Cautiousness, which makes you watchful, and probably you have larger Cautiousness than you would have had if you had been six feet high and proportioned in such a way as to warrant that size of head. If your body had been large enough to wield your brain well in the common duties and events of life, you might have had less Cautiousness, but when a buggy drives among ice carts and coal wagons it has to be on its guard all the time, and so if you had been organized like a heavy wagon, I think your Cautiousness would not have been so active.

You have Secretiveness enough to conceal that which you do not wish to express, and you have tact which enables you to accomplish results in a smooth and easy way and sometimes in an unexpected way. You

have a great deal of power over your facial expression, you can look sober when you are telling funny stories, and when a person is telling a story that nearly splits your sides with laughter, you can control your face in such a way as to look grave, and you can sometimes make people think you are stupid and do not see the point, but the truth is you can control the muscles of your face and keep them under restriction as long as circumstances require it. For example, if it was your vocation to be a collector for a commercial house, you could get a good many men to pay you where they would not pay most men. You have a very steady eye, and it is backed up by Firmness, Self-esteem, Combative-ness and Continuity and clear cut intelligence, so that when you ask a man to pay his bill and you look him straight in the eye, he feels that he must pay, he does not think that he can frame any excuse that will be valid, and he thinks the easiest way will be to pay. It is, perhaps, a little difficult to define just what I mean, for when a man, who is six feet high and weighs 180 pounds, walks in somewhere and asks a man to pay his bill, his very presence and manner say, "I have come for the money myself and you cannot refuse me." There is some excuse for such a man getting his money, but when you come in weighing only 102 pounds, people do not think that you are able to master them as the other man was, and they even feel that they could hustle you out if they thought proper to do so, but there is a difference, "Not by my might nor by power, but by my spirit, saith the Lord." And so a good many things are done that way.

You have large Veneration, you have a profound respect for those who deserve it, and you know how to carry yourself towards eminent people in such a way as to conciliate their good will, and it makes them feel that you deserve as much consideration as

they do. You have an easy way of expressing your respect for a person of eminence, and there is many a man who wonders why it is that you have such power with him and that he cannot say "No" to you. In the first place this Veneration is a certain kind of magnetism in itself, and in the second place there is magnetism in your methods, and your mentality impresses people with the idea that they must think and do as you wish them to, you do not have to express anger, or make them think that you will be angry if they do not do right, you apparently take it for granted that they will do right, as you expect to do, and you do not look for any wavering in the course.

You have the power of analysis and criticism which enables you to study things in such a way as to make shades of meaning very effective, and yet they are insidious and not brawling. If you wanted to make a man feel that he would get the worst for it if he did not accomplish something that he was in duty bound to, you would not speak roughly, but you would look him so sharply in the face that he would think there was powder somewhere if he did not do the right thing, and so you rule him with your intellect, and the moral feelings and self-reliance come in to back up what the intellect thinks.

You have large Mirthfulness, you see the droll side of life, and when you feel like it you can be very funny, and you can make other people laugh without laughing yourself; and it is your very gravity sometimes which makes the jokes seem so funny. If you wanted to assume what is called "mock gravity," you could do that to good advantage on the stage. If you were to undertake dramatic comedy, you would be perfect master of the position, and carry your audience with you. Your Mirthfulness and Imitation being large, with enough of Secretiveness to give you the easy command of your feelings, and the

tact to awaken the wit and the sympathy of others, your success would be easy and complete. Your strong social feelings enable you to carry the affectionate sympathy of others in your efforts to do it, with such a keen sense of human nature as to make your success easy and natural. You have large Sublimity, and a very keen sense of what is marvelous, grand and startling, and you appreciate the beautiful as well as the grand and immense, and your power of description is excellent.

You have a clear sense of the meaning of words, and you have the power of being impressive in what you say. There are two functions of Language. One is to give fullness in the way of utterance and the other is to give incisive persistency without much noise; and we think if you want to make anything impressive, you lower your voice, and if you had an obstreperous or wilful boy to deal with, you would say to him, "I think you had better do this, for if you do not I am afraid you will be sorry." And then he would gladly do it.

You have a broad and a high top head, and this development gives you a sense of righteousness and duty, and you can impress others with the same feeling, and with the idea that "there is a Providence that shapes our ends." And if you had a part to carry that appealed to the Sovereign Ruler of the Universe, people would feel impressed by that presence. In the Episcopal service the reader rises and says, "The Lord is in His Holy Temple, let all the earth keep silence before Him." And if that is rightly said, people feel the sublimity of it, but another man might rattle it off and the people would not think much about it. It would not move them in any way. Now, you have the power of making a thought impressive, and you can make it impressive by a virtual, though mute, appeal to the Higher Power.

You have a sense of finance, you appreciate the profit and loss side of life, and you are pretty keen in understanding commercial values and commercial obligations, and you want to have a clear understanding of worth where you are under obligations to people, or where people are under obligations to you. If you had duties or privileges involved in a contract, you would want everything written out completely and definitely, and you would be accurate in your statements and definite in your claims, and you would not be likely to have trouble with people on the score of finance, if they only wanted to do right;—because you have a clear sense of the rights and duties that belong to finance and to financial obligations.

If you had been educated for literature you would have made a fine writer, and if you had been educated in the direction of poetry you would have written poetry, and if you had been educated in the domain of art you would have painted well, and you would put your soul into the work you had occasion to do.

You are a good thinker and reasoner and a good judge of strangers. Your Imitation is large, you can personify people, you could speak in the voice of another so that it would sound as though some other person were speaking. You could carry on a dialogue and imitate the two voices so as to make it seem quite natural.

There is a good deal of the dramatic in you, there is also a good deal of the religious element and a wonderful amount of determination and dignity, but you are not quarrelsome, you generally manage to get your rights without quarrelling and without clamoring for them. If you were in business and a man owed you something, and he were to talk to you about a modification of the amount, you would look at him and say "Why, you do not decline to pay me my bill, do you?"

And that would make the man feel cheap and he would not hesitate any longer, but some men in your place would say "If you do not pay me my bill I will call you before a magistrate." And that stirs up ill feeling right away, and a man is apt to answer to that by saying, "Do it if you like, I do not care." But you keep cool and collected, and so win your victory.



MARSHALL P. WILDER, HUMORIST.

You have a large brain for your body, and therefore you need to do as much as you may to make your body sufficient to give your brain adequate support. You can do this in part by avoiding exhaustive effort, use the elevator instead of walking up the long flights of stairs, and if you take exercise take it on purpose and do not exhaust yourself by over exertion. Your large brain needs a body half as large again as yours is, and, therefore, you must do by yourself a little as a man does by his mill on a small stream, he has to reserve power by shutting off the flow of the stream at times, so that when he wants

to grind his wheat he will have some stored up power, as the natural flow of the stream is not sufficient to turn the mill all the time. And so you must rest a good deal and take proper and nutritious food that is easily converted, and then you will not need medicine nor assistance.

BIOGRAPHICAL SKETCH.

MARSHALL P. WILDER was born Sept. 19, 1859, at Geneva, N. Y. He was the son of Louis de V. Wilder, M. D.

He is endowed with a large, active and susceptible brain, but has a small body, standing but about four feet high and weighing 102 pounds. He has received a good education; has been before the public as a "humorist" about twelve years, and is one of the most marvelous story-tellers known. He is everywhere received with favor, and especially by notables in England and in his native land. Even Gen. Grant, having once been introduced to him, and, meeting him on a street corner in New York, near the Park, he called a carriage and asked Mr. Wilder to take a turn in the park with him, and thus devoted an hour. Such men as Mr. Beecher, Mr. Blaine, Mr. Depew, two presidents of the United States and the Prince of Wales have received him and treated him with the greatest courtesy—not because he is little and childlike in stature and appearance, but because he has wit, grace and good-nature, and they feel that he is a sunburst of light and joy.

He has written a book of about 300 pages, entitled "The People I've Smiled With." It is full of wit, pathos and tenderness, showing that though his body is small he has a big head and a genial heart. No sketch of his life and work will at all compare with an hour in his presence, under

the electric influence of his wit and humor, and the best part of it is that there is no sting in his wit—he makes nobody unhappy and he is as modest as he is brilliant. A copy of the letter which Mr. Beecher gave him as an introduction to the President will give some idea what so capable and brilliant a man thought and was willing to say of him over his own signature:

Dec. 24, 1886.

MR. PRESIDENT, DEAR SIR: Marshall P. Wilder desires an introduction to you, and since in his English career he has been received by the Prince of Wales and is a favorite with nobles and commoners of high degree, he will feel honored if you will receive him kindly. He asks nothing but the privilege of conferring pleasure. His entertainments are highly laughter-provoking and of an original character. He deserves great credit for making a brave struggle against difficulties that would have appalled others. He is a most worthy and respectable person, and his efforts in my church on sundry occasions have given very great amusement both to the children and to the grown folks.

Yours sincerely,

HENRY WARD BEECHER.

And the President, when he received the letter, invited Mr. Wilder to come forward and take precedence of Governors and Senators that he might show his regard for one so cordially recommended.

But one must read his book or hear him in public to realize how much can be done with so fine and large a brain connected with so small a body.

CHAPTER XLI.

CHARACTER STUDIES. No. 8.

[This young lady was presented as a total stranger and described and the work completed as here given, without a dream or thought of her history, her effort or her hopes.—N. S.]

FLORENCE ROCKWELL.

You ought to have connected with that large brain of yours— $22\frac{3}{4}$ by $14\frac{1}{2}$ inches—a constitution that would ultimately turn the scales at 160 pounds, and you have time enough before maturity to reach the requisite weight. If you were to go on the stage and could have the ripeness of life which 160 pounds ought to bring, you would play Lady Macbeth better than you would if you weighed, as now, only 112. The body is the boiler, or officiates as such. The brain is the engine, and yet the brain is the master of the body. Every tremulous thread of the bodily constitution, every fibre, is under the immediate dominion of the brain and cannot act without it; and yet the body feeds the brain and acts out and obeys the mandates of the will in all the efforts that bring victory, however put forth. So the brain and body is a composite establishment, interplaying and working, and it is called automatic.

You have a well balanced head; that is saying a great deal for any head; but it is a large head and a healthy head, and a mental make-up that is calculated to win victories somewhere. It does not make much difference where you try it, whether in scholarship, in mechanism, or in art as portraiture, or art histrionic, or art musical, or art terpsichorean, or equestrian art.

Your large Perceptive organs give you an open sesame to all the outward world; you see it and know it and appreciate it. You draw pictures; you would be picturesque if you wanted to—that is, you could

play pantomime; you could suit the action to the word in elocution.

You have large Order, and consequently you incline to systemize. You have large Calculation, and hence you are inclined to be mathematical; you think by square corners and in a way that is demonstrable, and when you come to a conclusion you feel solid on it; you do not guess at things so much as some do.

You have strong musical talent, and you ought to play everything from a penny whistle to the great church organ. I think you ought to sing; I mean that you have elements of body that would make you a good singer. Some people have the soul for it, but they lack voice; they cannot make the fiddle respond.

Language qualifies you to express yourself easily. Causality is large enough to make you take in the why and wherefore. Comparison enables you to analyze and discriminate and see the differences and the analogies, and think pictorially on that account. You see the scene and then describe it. If you were a lecturer and public talker you would see the figure; you would have the vista of it that would spread out like a panorama; sometimes it would be a moving panorama.

You have large Mirthfulness; you see the funny side of life and use it. Your Constructiveness and Ideality enable you to do anything in the way of ingenuity. Your hands follow your thought and are expert, you have what the French call facility. You look out for the dollar; believe in a good exchequer and also in a good cuisine, and you would learn to cook, and it would taste good in anticipation if

you were preparing food. Hence your well sustained vitality.

You have large Destructiveness, and that enables you to be strong in your compositions; there is a bravery about it; there is a certain kind of executive severity. If you were on the stage, for instance, and you had to execrate something, it would feel execrated. If you reprimand persons they feel as if they were reprimanded.

There is hardly anything that a woman can do, or a human being, for that matter, that you cannot work at to pretty good advantage.

You have large Firmness, and that gives you persistency. You have Self-esteem enough to make you self-poised and self-possessed, but not enough to make you seem to be dogmatic. When you know all about it you sometimes say it suggestively. Another one will say, "It is so and so." You do not do it.

I think if you had a trifle more Self-esteem it would not hurt you at all.

Continuity is not quite large enough for a perfect character; but sometimes it is a benefit not to have too much, because you can make transitions from what you are doing and thinking to something else that may be interjected. For instance, if you were reciting a dialogue, and you were in earnest talking your point as if you had your mind made up about it and something else were interjected, you could turn right around as the play would be written, and talk it as if you had not thought of anything else for a week. When you come to daily life you can do it. If you were a teacher and a pupil brought a problem, you would be all arithmetic for a minute till you got the thing straightened, and another would be waiting for grammatical assistance; then you would become grammatical; you would bury the arithmetic and the mathematics as if you had never known them; then the geographical question and the question in history or mental philosophy, and you would go from one to another and would

seem to sparkle; and the children would think you were very smart; but if you had large Continuity, it would take you a good while to get into arithmetic; and when you got into it and another person asked you about grammar, it would take you a long while to get yourself established in that, and the pupils would think and tell their mothers, "I don't think our teacher is smart, for I got the problem out before she did." It is only large Continuity that makes one do that. It takes some time to transfer a locomotive from a platform car to a ship.

You have the social elements well developed. You are a good friend; you are a good citizen; you believe in home; you would be a good mother; you believe in children and know how to deal with them; dogs believe in you; all pets would talk to you; canaries know whom to talk to and they recognize them.

You have strong Conjugal love, that is to say, it is a feeling of satisfied and centralized affection. "This one and nobody else." And as soon as you were engaged you would like to have it understood in the circle where you moved that you were engaged, and then the conduct would not be thought too diffident or too forward or too something else. Besides, you would not want to have an extra distance established between yourself and your chosen companion; because if people knew that you were engaged, they would think you were pretty cool, distant and formal. You would want the fact known, and then if you wanted to be joyous and jolly for a moment, it would not seem out of place. And if you wanted to have it appear that everything was settled, that would be all right.

I think you are not much of a hypocrite; there is a good deal of wholesome and homelike integrity in your make-up. You have a lot of common sense. You have always had enough of that; when you were a little girl as tall as a chair, you were old-fashioned, as grandmothers used to call it; you

would talk sense and give answers that would seem too old for the tree they grew on.

You are not too large in Caution; that is to say, the elements of force

because it would be fed and nourished, and, like a great organ, with enough of wind to make it sonorous. Where a person's body is not large enough for the brain, there is a little weak-



FIG. 8. FLORENCE ROCKWELL.

Rockwood Photo. N. Y.

are strong enough to balance the elements of prudence, so that you do not feel timid nor act timid.

You have an uncommonly large brain, and you look to be pretty healthy. If you had more body, there would be more snap in your eye, and there would be more glow in your cheek, or, if you had a $21\frac{3}{4}$ inch head with your weight it would scintillate,

ness in the manifestations, as there would seem to be in the playing of a great organ if it were not kept up strongly—a lack of accomplishment.

If you wanted to be a scholar in history or art or mechanism or commerce, or in domesticity you would be at home all around. We seldom find a head as large as that with a person no larger than you are, and we sel-

dom find a head as large and as well rounded out and full as yours, and there are fewer phases in it which fail to respond as fully. A billiard ball is supposed to be perfectly developed every way for its size. It does not care which side it rests on; one side is as good as another, and it will roll within an eighth of an inch of going into a pocket; it does not know that there is any danger there, don't know that there is any game in it, but it stops when the force stops. That is what balance does.

You take common sense views of life; I mean by that reasonable views of life; you are not angular and eccentric or queer or partially insane, as most people are. There are some sharp sides to most people, and some flat sides; and so with genius and imbecility muddled in together, they are eccentric and fill the world with astonishment.

Now, you may do what you want to do in the way of thought and study and work and achievement, and not fear failure. And I see no reason why you would not excel in almost anything you might desire to do. You may be a musician; you may be an actress; you may be a mechanic; you could paint well, as you have Color and Form large.

BIOGRAPHICAL.

Florence Rockwell, who was born in St. Louis, Mo., is not yet sixteen years of age, and has already in her short career attained a position and accomplished that for which many actresses have labored for years. As leading lady for Thomas W. Keene she has played Juliet, Ophelia, Desdemona and various other rôles of a Shakespearean and classic repertoire, to the delight of critical audiences. Her success was so marked that she will soon appear as a star.

She showed her dramatic talent at an early age and was perfectly at home before an audience. Her first appearance in public was at the age of four years, when she entertained

the members of the St. Louis Merchants' Exchange with recitations from "St. Nicholas" and "Babyland." She was in demand for amateur theatricals, and when twelve years old her talent had developed to such a degree that it was decided to have her study for the stage. She came to New York, and the metropolitan critics confirmed the verdict of her friends. She was placed under the tuition of Rose Eytinge, who was enthusiastic in her predictions for the future. Two years were spent in study, and the little girl had grown to be quite a big girl when a vacancy occurred in Mr. Keene's company and she was offered the engagement. She made her debut in Pittsburgh as Julie de Mortemar in Richelieu. Her success was instantaneous. Miss Rockwell takes great pleasure in athletics and has made a record in gymnastics. She is remarkable for her symmetrical physical proportions. She is an earnest student, and with her youth, grace and dramatic power is "pronounced a girl of positive genius, around whom prophecy will delight to gather."

EXTRACTS FROM PRESS NOTICES

Pittsburgh Leader, Sept. 5th, '93.

"Miss Florence Rockwell is pretty and has a gracious stage presence. Her expressions in the most trying lines are natural, and the lady gives evidence of latent genius. She has a sweet voice that endears her to her audience before she has spoken a dozen words."

Kansas City Journal, Oct. 8th, '93.

"This girl of fifteen is certainly an important consideration in the legitimate field, although she never appeared professionally until about four weeks ago, when she at once assumed the position of leading lady with Mr. Keene. Her Juliet is a wonderfully impassioned and illusory creation. Her reading of the beautiful lines is informed with a philoso-

phy, a passion and a general intelligence nothing less than astonishing."

Chicago Dispatch, March 6th, '93.

"If Miss Florence Rockwell does not have her pretty head turned at the adulation her youth and genius will bring, her coming years will be crowned with the laurel wreath of brightest success."

St. Louis Republic, Nov. 23d, '93.

"In Ophelia the unadorned picture that the girl presents by itself wins applause. It is not necessary for her to speak to know that she is lovelorn, or later no word is needed to add to the proof that her mind is gone. No insane laugh of recent Ophelias has surpassed that of the creation of Miss Rockwell."

Baltimore Sun, Dec. 29th, '93.

"Mr. Keene's marked success was shared by Miss Florence Rockwell, whose Ophelia was the very embodiment of girlish feeling and pathetic delicacy, particularly in the mad scene."

Boston Traveler, Dec. 9th, '93.

"Unquestionably the youngest

leading lady in the world in tragedy is Miss Florence Rockwell, who has won the praise of many of the best critics in this country in such rôles as Juliet, Ophelia and Desdemona. Miss Rockwell is but fifteen years of age, and this is her first season upon the stage. Many persons who are in a position to judge say that the young lady is the coming successor of Mary Anderson."

Cincinnati Post, Nov. 28th, '93.

"Miss Rockwell as Julie won the appreciation of the most critical. She is really but a child, and only when Julie exclaims that she is no longer a girl but a woman, does the impulse of genius carry her over the line of maturity."

Washington Capitol, Dec. 23d, '93.

"Miss Rockwell takes the part of Juliet for the first time at Juliet's age. A child-like, pure lily face she has as any little girl making her Easter communion, and yet some of the great critics have said that her work is strong and real and full of the true ring of dramatic power."

CHAPTER XLII.

CHARACTER STUDIES. No. 9.

[A photograph of this man was handed to me for analysis and description. It was dictated to a stenographer, with no information as to the name or work of the original, and is here presented verbatim as then given, the veritable study of a stranger.]

B. J. RADFORD.

This head and face constitute an interesting study. The height being six feet and the weight but 165 pounds, show that there is not a pound of flesh to spare. Hence, his body is muscular but not plump, active and strong and substantial without being weighted with adipose material.

He is a natural worker. Wherever he may put forth endeavor it counts. If he were a mechanic he ought to be a builder of large structures, and do something that requires breadth and height and strength. He would hardly be willing to make bird

cages or watches, but rather locomotives, bridges or churches; and while he has a wonderful development of the Perceptive organs, showing marvelous fullness over the eyes, giving the keenest kind of practical criticism, he does not deal in light, trifling matters. If he were accustomed to the use of tools he would want something, the handle of which would fill his hand like a carpenter's hammer. And he would hit where he looked, just as his Language goes to the spot without any divergence, and makes a solid and influential impression. Imagine him a soldier with those great cheekbones, that large nose, that high head, and that spirit of courage

and thoroughness which animate every feature, which show distinct and earnest attention and intention. Imagine him a worker in the fields of heavy industry, the master of a ship, at the head of a hundred workers anywhere, and it would be easy to suppose that he would be the leader, the master, the teacher, the director. Notice the great fullness along the middle of the forehead; he has not only the large perceptive development across the brows, but through the middle of the forehead the organs which give retentiveness, ability to gather knowledge and hold it ready to be used whenever it comes to be required. Hence he would, as a business man, have fertile resources; he would, as a public speaker, be full of sound and searching truth, and rarely at a loss for a clear and vigorous method of expressing his thoughts. His memory furnishes the material that his large perceptive organs have acquired; the memory holds it and pays his drafts at sight, and, therefore, he seems to know everything in the field of his endeavor where he would choose to act. There would be few men in such a field who would be more ready and vigorous and clear-headed than he, or more decisive in his utterances.

The upper part of the forehead is also large. He is a wonderful critic, sees the flaws and excellencies, the success and the mistakes which are interwoven with the conduct and works of people around him. He would be a good reviewer of books; or, if he were a mechanic, he would write clear and satisfactory descriptions of machinery and other structures.

He has the psychological spirit, the tendency to read men and understand mind and motive, and know how to relate himself to people in order to become their leader, their teacher and their master.

He appears to have large Language, although the eye is not protruding. If he were to gain thirty or forty

pounds of flesh, there would be a fullness under the eye which would indicate that Language was large and active.

His Causality makes him philosophical, but he is also historical, scientific, descriptive, analytical and biographical. He would enjoy writing biographical work; and if he were related to such a department of literature, he would be invited to write biographies, which would be read with avidity and pleasure. As a preacher he would talk up some noted worthy of olden time, and give such a running commentary on his daily life and walk and spirit that people would feel that he had been there and known him by sight and by touch. He would make a splendid lawyer; he has the power of debating, and, unlike some lawyers, he would not take a circuitous route for the accomplishment of a purpose. He inclines to work in straight lines, as railroad men would say, he is an express train, and has a right to the track, and other traffic is side-tracked till it goes by.

The reader will notice that in the upper angle of the temple, the head seems to broaden out, and that shows a large development of Ideality, and, with all the rugged strength of his features and expression, he has a sense of the beautiful which sometimes invites his thought and his language, and he will make some beautiful passages, but they are always strong.

He has large Sublimity, and consequently enjoys the vast as well as the beautiful; and if he were to write poetically, there would be strength as well as beauty, majesty and power, as well as delicacy and tenderness.

His Cautiousness is influential, but not too strong; for his own purposes, Cautiousness has only the tendency to keep him awake to all his surroundings. He does not walk or act or feel timid or alarmed, but he does not cross the street without looking to see if something is likely to injure

him. He looks at his steps, but he makes them rapidly and firmly.

He has large Self-esteem, is conscious of his own worth, and when well assured of the data on which he

they do not appear to reach their conclusions by a suggestive diffidence. But every utterance is a blow squarely laid on and so, when he feels assured as to his premises, his conclusions are



FIG. 9. REV. BENJAMIN J. RADFORD.

is acting, he moves as if he were entire master of the situation.

Firmness is large enough to make him seem overbearing, dogmatical, but people who know how much he has had opportunity of knowing will not regard it as dogmatical. It is simply a recitation of well known facts. Men do not apologize when they recite the multiplication table;

as inevitable as gravity and sometimes as heavy.

Conscientiousness is a chronic attendant; every movement of his thought and purpose must be squared by the element of righteousness; and, knowing himself to be right, he utters his thought or executes his efforts with a pushing certainty that discourages opposition.

His Veneration is large; hence he has a high respect for greatness and whatever is noble or divine.

His benevolence is large; it is not common to find a man with such massive severity of features and expression who is so gentle and sympathetic as he is. He has enough of his mother and other divine facts in his make-up that he is sorry for suffering and lenient towards ignorance and even vice; and he would deal with culprits with less rigor than most men who are as rigorous about their own conduct as he is. He is broad enough to feel that many men are wicked largely because they are weak; and others go astray and do wrong and are culpable from lack of opportunity for culture and improvement. Hence he would deal with those who have one talent gently. People are afraid to do wrong in his presence, and feel guilty when they see him if they are conscious of having lived below their proper privilege and duty, because that honest eye and that firm expression, and that tall top-head will always be a reproof to wrong doing. When boys, having been in mischief, see a policeman, they run; and there are men who walk the world who are not policemen, in whose presence sinners feel ashamed and afraid.

The side head seems rather narrow, as if his love of gain was not remarkably strong, and as if his Secretiveness were not large enough to give any shade of double dealing or duplicity. We judge, therefore, that his word is uncommonly direct but sincere and generally accepted.

He has the element of wit, but he would not use it in sarcasm, but rather as a plaything; he will laugh with those he loves, and pity those who are ignorant or too wicked to do their best.

His social feelings are fairly indicated; his friendship and love of home give him a companionable spirit and a loyal devotion to country and home.

His dark complexion and his large

bony structure indicate great endurance, and we judge from the constitutional indications that he belongs to a long-lived stock and is likely to live to old age and do good work clear up to the end.

That is a historical head. He is a fact gatherer and a fact retainer and a fact user; and he gathers material from every quarter of the world; and no fact that has been earnestly elaborated is uninteresting to him.

He enjoys traveling; he would be a fine geographer and a clear-headed scholar in almost any branch of useful knowledge. His memory, his Ideality, Language and Comparison give him a decidedly literary turn, and he would use it as a means of outlet for the expression of his power.

BIOGRAPHICAL.

Benjamin Johnson Radford was born near Eureka, Illinois, December 23, 1838. Working on the farm in summer, and attending school in winter, were the occupations of several years until he was about 17. His first teacher was an expert penman, and the youthful Radford was ambitious to equal his teacher in this art. Those now familiar with his beautiful chirography will appreciate the success of this early ambition. And, indeed, throughout his student life, whenever he has met a teacher who was remarkable in any department of study, it has been his purpose to excel in that branch.

The result of these characteristics, has been his elevation to a high position among his compeers in literary, scientific and Christian work. The young man continued to work on the farm, teach school, and attend Eureka College, until the commencement of the civil war in 1861, when, at the age of 23, he had reached the senior class in his studies. He enlisted in the company of Prof. O. A. Burgess, being mustered into the U. S. service May 25, 1861, and continued in the army until the close of the war in 1865. He re-entered Eureka

College in September '65, and graduated in June, 1866.

Until the war broke out it had been young Radford's purpose to prepare himself for the legal profession; but his experiences in the army, together with the influence of his matrimonial alliance with Miss Rhoda J. Magarity, to whom he was married in November, 1864, changed his purpose, so that he decided to turn his attention to the Gospel ministry, which was a surprise to the companions of his youth, for he seems to have been regarded by them as greatly lacking in the natural meekness and sobriety compatible with such a work. And it is likewise to be noted, that, even after he had undertaken the work, with all his studious preparation, a venerable elder in the church advised him to turn his attention to some other calling, as his prospect in the ministry seemed to foreshadow failure. This now seems amusing, in view of the success that has attended his labors, as well in the pulpit, on the platform, through the press and the school-room, in every department of moral and religious work in which he has been engaged. It is in point here to say that some of the ablest papers that have appeared in religious quarterlies of his denomination have been from his pen.

Prof. Radford has occupied, with more or less success pastorates in Niantic, Ill., Des Moines, Iowa, and Eureka, Ill., his home church, where he was located for ten years, teaching also in the college, two years of

which period he was president. During his two years' residence in Des Moines, he was also president of Drake University.

In September, 1885, being then engaged as pastor and professor in Eureka, Mr. Radford was unexpectedly invited to Cincinnati, Ohio by the late lamented Dr. Isaac Errett, the founder of the *Christian Standard*, a weekly religious journal which now has the largest circulation of all journals of its class west of the Allegheny mountains. Prof. Radford became associate editor of this paper, and so continues to the present. His peculiar work entitled "Around the World" embraces a review of the exchanges, which necessarily calls in exercise his varied learning. While conducting this department during the past nine years he has also been engaged in pastoral labor most of the time. A small portion of this was at Denver, Colorado, but mostly at his Eureka home where he is also engaged in the college as professor.

As a poet Prof. Radford holds no mean place in the literature of our day. His book of poems, "The Court of Destiny" deserves and receives high commendation.

As a farmer, soldier, teacher, preacher, editor, lecturer or poet, the subject of this sketch has had a varied experience; and the successes of the past, as he is but little past the meridian of life, promise more abundant results in the future.

M. C. TIERS.

CHAPTER XLIII.

CHARACTER STUDIES. No. 10.

GEN. BENJAMIN F. TRACY.

[Examined as a stranger and dictated to a stenographer with no knowledge or suspicion of the name or pursuit of the subject.]

We judge that you inherit from your mother more than from your father, and that gives you, strange as it may appear, more weight than you might have had if you had resembled your father. You have a long body, and that counts in weight. You have good vitality, and this a man is more likely to get from his mother than from his father, because the feminine has to furnish nutrition for the young, and we very seldom find a woman who has dyspepsia, unless she resembles her father. You ought to be known for endurance.

You have also inherited the feminine type of mentality, as we use the terms. That means an intuitive method of grasping truth. It is a little like the "flash-light photo;" they get it, and do not exactly know how nor why, only they feel that it is true, and it *is* true. The best judgments that some people have are those that flash on them, and they do not know where they came from, and don't care. Occasionally we find a man or woman who have the courage of such convictions, and act on them with good results.

Your perceptive organs are large and active, and they are formed for intuitive action, not so much for logical and mathematical action; but it is that which the bird does when it flies above all the fences; oxen have to go around by the road. You are quick to perceive; as they say on the street, you "catch on" readily to that which is afloat, and take the hint; it does not need much enforcement to arouse you. And you may sit and be quiet and not seem to notice

or know, and you will hear all that is said, and see how that is done and get the run of the whole arrangement.

Suppose there were some young ladies who came in and were talking of their beaux or some engagement and other things, you will get the run of it without hearing much. Your imagination and your intuition enterprize a dreamy development into a reality; and what you cannot hear you supply. If you were pulling the rope of politics and were among scheming men, all wanting the nomination, you would go into a convention and pretty soon get the inkling of what was up and you would go to some of your confidential friends and say: "I am suspicious that certain plans are being concocted for the promotion of opposing purposes, but we will see how it comes out." In a couple of hours the man comes around and says: "I find the air is full of it." But you would get the inkling early; it does not take much to tell you which way the wind blows.

Comparison is one of your other strong traits. You compare one thing with another and so you link fact and fact, and by analogies you work out results. People sometimes do not believe that you are on the right track; but if they get acquainted with you they find your signs of weather for to-morrow and the next day are pretty sure.

Your interest in human nature *per se* is strongly marked. You seem to read strangers as you meet them. I had a man under my hands one Saturday night in the year 1851, and I did not care to light up, for that was the last I was going to do, and he took a seat as you are sitting, and said: "I wish you would tell me what you think

about my head." And I saw the organ of Human Nature was large, located just where the hair and forehead unite in the middle. I put my

developed you would be astonished, almost alarmed, at the accuracy with which you had appreciated them." He arose and said: "That will do.



FIG. —. GEN. BENJAMIN F. TRACY.

finger on it and said, "You would make a good police justice in the city of New York. If fifty culprits were waiting for examination you would look them over after you had taken the seat and quietly adjudicate their cases; and when they came to be

How much is it?" "Oh," said I, "I have said only one thing; I want to say forty-nine more." "That's enough; that is all I care for. I live in Chicago. Mr. Fowler is out there lecturing. The other night they persuaded me to go on his platform for

examination, and he put his finger just as you did and said to the audience: 'This man would make a good policeman; he would smell a rogue three miles.'" Said he: "My name is Pinkerton." And that was old Allan Pinkerton.

Well, you have a similar trait, and you could do some detective work. If you were a lawyer, you would talk to the detectives; if you were a policeman or one of the Police Commissioners and you were studying matters, you would give points to men which would naturally grow out of certain facts, and you would be correctly suspicious of certain persons.

Your Benevolence is well developed. You are kind hearted and liberal and sympathetic. I think your mother was so before you, and if she lived in a country village the poor women between sundown and dark would come in with a basket under a shawl, and your mother knew what it meant. And when she was gone they missed her. Other people missed her, but they did not miss her in the same way. You are sympathetic, as she was; and although if people trespass upon you and get your ire aroused you sometimes feel indignant enough to come down pretty heavily upon them, yet if the wife of the man should come to you and say she hoped you would be lenient with John, you might do as another man did, who let the man go to jail for thirty days, and then harnessed up his ox sled and put on a half cord of wood, a basket of potatoes and a bag of meal and flour and a chunk of pork, and hauled it around to the poor family, and fed the family while the man was justly suffering in jail for his crime. So he carried his justice and his severity in the right channel, and then fed the family with his kindness till the storm had passed over. People think a man cannot carry opposite states of feeling, but that man did, and you could. You could be just to the culprit; you

could be lenient to his suffering family, and yet see that justice was administered properly.

I think the middle section of the head from ear to ear over the top is like your father. You have your father's determination, self-reliance and integrity; you are set and decided, and people who have occasion to deal with you, when you come to a point of absolute decisiveness, they begin to be persuasive; they do not give you an ultimatum, because that is not the way to manage with you; as long as they can keep on the persuasive side they can work you. But as soon as they begin to put their foot down and say, "It is going to be so," you remind them it takes two to make a bargain always, and sometimes you will make a man take back something else, and get that old matter square. You say or think: "I want to feel that I have no fence around me; I don't want to be threatened." There have been times in your life when men of calibre and strength have tried to weave a combination around you that would coerce you, and they found out they had to deal with wrought iron instead of cast iron. In casting balcony railing, when the pattern is a grape vine, inside of that cast iron work, which is light, there is stretched a wire as large as a lead pencil, a good tough wire, so as to hold the pieces together in case it got cracked. People would find they could not break you. There would be something to hold the pieces together; you would be master of yourself and your situation.

You have rather large Self-esteem. You are proud; you are independent; you are an exceedingly firm man; your head measures $15\frac{1}{2}$ inches from ear to ear over the top, indicating steadfastness and stability.

Your Conscientiousness is also large. This gives you a sense of justice, duty and moral obligation, and when you feel obliged to do a thing by what Joseph Cook calls the

"sense of oughtness" that is the best bond you can have. If you have given your word of honor, looked a man in the face and shaken hands with him and said, "I will see to that; you shall not suffer by it," you would stand it when the pinch came, if it did cost something. You had given the man your word, and he believed you, trusted you. And you would be able to do it, and you would accomplish it. You might tell him he need not say anything about it "between us." You would not want other people laughing at you about it in case of failure.

Your Cautiousness is large, which gives you a disposition to be on the watch tower, to be guarded against all machinations that may be hatched against you.

I think you are a conservative man in your feelings, and you are a progressive man in your opinions. The feelings and opinions are not the same. You would be likely, in dealing in real estate, for instance, to be more careful about having the papers all right and the searches properly done and everything safely fixed all the way; in writing contracts you put everything into the document that is good for anything, while the parties are all mellow and willing to do the right thing; and sometimes these rods of wrought iron inside of cast iron avail you something—hold the business together. It don't say much, but it is there, not known till the stress comes. That comes from Caution.

Secretiveness enables you to say nothing when it is not wise to talk, and, as men sometimes say, lie low, and keep shady. If you were playing cards for fun and there was a tendency on the part of somebody to cheat, to do something that was wrong or not according to rule, you would put your hand out and say, "Not quite, John; that won't do; this is the second time you have tried it; I thought I would stop you now."

After the game was ended, you would say, "I have played that enough, I think, for to-night." That would be a rebuke. But your Secretiveness and watchfulness would keep you wide awake about it. If you were a lawyer, they would not spring surprises on you; that is to say, you would seem to get an inkling of them before they developed them, and then perhaps have something ready to match it.

Your social nature is strong; your back head is well built out behind the ears. Friendship is especially strong; you like to travel in partnership, in company; you would like to be in partnership in business; you might be the boss of the job, but it would be pleasant for you to have partnership in it and talk it over. Even though every plan was made by you and every decision was made by you, you like to have somebody there to see and help. This means that you are fraternal. You are good on a committee; you would be good on a jury; you would be good on a board of trustees; men would have to be pretty smart to get the best of you, because you have the provident Caution, you have the suspicious Secretiveness, you have the indomitable Firmness, and you have such a sense of justice that you keep the reins pretty snugly in hand; and then you have the intuition that gets there without being hindered. Your intuition is a little like quicksilver in a man's pocket which runs right through the meshes of the cloth.

You have mechanical judgment; you would have good planning talent in building. You have financial capability, but it is not so much a tricky mode of manipulating matters as it is a wise forethought that plans beforehand. I think you would make good investments, and you would be wise on a finance committee. Your Acquisitiveness does not lie down low; it rises up high in the region of creative invention. I think you would be able to handle property that was a drag on other people's hands if you

could get margin enough. If somebody wanted to unload and was willing to make a discount to unload in order to get money so as not to have to go to the wall, and came and urged you to take this extra amount and load yourself, you would manage to divide it with some of your friends. If, to save your friend, you had to go and consult with one or two of your neighbors and agree to divide it up among you, you would be the buyer and divide it, so as to help the man out, and keep him from going under. All a man wants is so many hundred dollars, and he has something that we can afford to buy at a reduced figure and carry it if we are able—he is not.

You have the elements of long life, vitality, power, endurance; you have a good memory of whatever interests you; and you carry reminiscent matters with more clearness than most men. You would, as a scholar, make good progress, and achieve desired results and stand well. You would carry science, business or history in your head, and be able to co-ordinate your knowledge in such a way as to make it effective. If you were a lawyer, you would have wonderful talent in cross-examining witnesses and the power to do it in such a way that the witness would forget himself, and feel that you were a friend, and he could confide in you and tell you everything that you asked him about, and your memory would enable you to carry a case in your mind, and bring it out in vivid relief in your summing up. Your analytical power would come in to enable you to make nice distinctions. Your logic would aid in combining the facts of a subject, and you would be able to co-ordinate the whole into an effective result.

BIOGRAPHICAL.

Benjamin Franklin Tracy, late Secretary of the Navy in the cabinet of President Harrison, has been a marked and most efficient character ever since

his admission to the bar in 1851, at twenty-one years of age. He was born in Owego, Tioga Co., N. Y., April 26, 1830. Was District Attorney of his native county in 1853 and re-elected in 1856; in 1861 elected to the legislature; raised two regiments for the army in 1862; was Colonel of the 109th, which undertook a prominent part in the army of the Potomac. In 1866 was U. S. District Attorney in New York, and rendered signal service to the Government for seven years. He gave special attention to the prevention of frauds on the revenue by whisky distillers, there being in his district over five hundred distilleries. He prepared a bill regulating the collection of taxes on spirits, which in one year resulted in securing \$50,000,000 for the treasury, against only \$13,000,000 collected the year previous, the Commissioner of Internal Revenue declaring that the sagacity and energy of District Attorney Tracy saved the internal revenue system from becoming a failure. In 1873 he resigned his office and resumed the practice of law in Brooklyn, N. Y., and was associated with such eminent advocates as William M. Evarts and others of nearly equal note in the most important trials of the times.

In 1881 he was appointed Associate Justice of the Court of Appeals; in 1889 he was appointed Secretary of the Navy, and filled that conspicuous position with eminent ability, and commanded the approval of all patriotic Americans. During this service he lost by fire his house in Washington, and his wife and daughter perished and his own life was barely saved.

As a lawyer General Tracy has been connected with many conspicuous trials, the latest of which was that of the State vs. John Y. McKane in 1894, for election frauds, which lasted twenty-three days and landed the accused in Sing Sing prison. As a patriot, statesman, soldier, lawyer, judge, citizen and friend, Gen. Tracy has sustained a high rank.

CHAPTER XLIV.

HUMAN PURSUITS STUDIED PHRENOLOGICALLY.

THE PROFESSION OF LAW.

THE learned professions call for the best there is in human nature and human culture. The study and practice of law offer a conspicuous field for the display of talent and force in legislation and jurisprudence ; the Ministry and Medicine, Science and Literature are equally useful, if less prominent in their administration.

The law as a profession may be considered under several heads, as Criminal, Railroad, Real Estate, Corporation, Advocates, Counsellors and Drawing legal papers.

Personal success in the aquisition of wealth and notoriety in the practice of the law in any of its forms should not be the whole end and aim of its votaries.

There are two factors, the lawyer and the client. The client needs the lawyer, he needs law knowledge, he lacks it himself, he comes to the lawyer, and can afford to pay a proper amount for it. The lawyer ought, therefore, to have the natural talent to acquire the facts and understand the principles involved in legal matters. He must be informed in regard to statute and common law so as to know what the rights of his clients are under the law ; and he ought to have a good memory to retain this knowledge and have it ready at a moment's notice so that he can give proper advice in emergencies.

A man can have a knowledge of law in a scholarly way and not have very much of the sense of equity. He may know what the law is but not have a very clear understanding of what justice is. It is desirable that the lawyer should have moral development to consider justice as a matter of fact in the community, and not use his talent and his tact to foster his

client wrongfully at the expense of other people. The top-head should be well rounded and well elevated. A lawyer with a low top-head and broad side-head is selfish, liable to be base and unprincipled, to be tricky and willing to aid villains in evading their proper responsibility. And these low-headed, cunning lawyers sometimes make more money than an honest and much more capable man could make in administering justice.

The Phrenologist, in giving advice to persons contemplating legal pursuits, should seek to find a man with large peceptive organs so that he can take in the facts ; he should have large Eventuality and Locality and if possible, Time, to understand and remember data and detail. He should have large Comparison, to be able to draw nice distinctions where honest men might differ ; and a good share of Causality, to understand the philosophical principles involved in the subject. With such an intellectual and moral development, he will be a jurist, not a shyster ; he can be a statesmen, not a mere politician.

A lawyer ought to have Secretiveness enough to carry a smooth, straight face and not betray his cause or his embarrassment if something is thrust upon him and his cause that is a surprise.

The lawyer should have rather large Cautiousness, to be on the alert for whatever may be dangerous to the interests of his client or the cause of justice. He should have Secretiveness, to be suspicious of people who are tricky and unfair, and always wakeful to whatever machinations they may undertake to spring upon the court.

A lawyer without sufficient Combativeness will be tame in the protec-

tion of a cause ; a man with too much Combativeness will keep the court in a furor or turmoil ; he will anger everybody without benefiting his cause, and sometimes injure it thereby. He should not snarl ; he need not bark. A lawyer who always maintains his temper and his equilibrium will conciliate everybody, and people will be willing that he should succeed. There are lawyers whose manners are so unpleasant that the whole people feel a disinclination to have them make a point and get ahead. Combativeness and Approbativeness sometimes make sad havoc with a man's success and reputation.

Self-esteem should be well developed in a lawyer ; then he can stand in the presence of the great unabashed, in the presence of able counsel unembarrassed, and on the whole feel that his rights are complete, that he has standing in court, that he deserves respect, and then he will treat everybody as if they were willing to accord respect to him and his purposes. Such a man is rarely assailed in an unmanly or disorderly way. Everybody feels willing to give him credit for correct intentions, and he should, at least, deserve it. The better temperament and better mental and physical development a man has, the better lawyer, merchant, minister, mechanic, or citizen will he make.

If young men have slender physique, an unbalanced and erratic mental makeup, if they have a poor memory or lack ordinary policy and prudence, they would better select some business the conduct of which shall be a success to themselves if possible, and no detriment to the interests of other people. A lawyer is a public man and should be worthy of his rank.

I sincerely believe that a man who knows enough, and has moral power to appreciate duty and truth, can practice law in the fear of God and in the love of the human race. He can be as clean and untarnished in his thought and word and work as Infinite Wisdom and Truth wishes him to be, and to

emphasize this thought, it affords me pleasure to refer to a man who figured liberally in the law during this century, and who resided in Hartford, Conn. His name was Seth Terry, and he was always spoken of as "Deacon Terry." A glance at his picture will show that he had a massive intellectual development. His front head is high and broad and massive ; it also shows a high development of the moral region. He was believed to be as honest a man as ever lived in that ancient commonwealth ; but he found that the way law was ordinarily managed, he had to come in contact with chicanery and all kinds of trickery and unfair dealings on the part of those opposed to him, and he became disgusted ; so he quit practicing in the courts, and opened on his own account a kind of court of counsel. He would meet persons who had a disagreement, and by mutual consent they would come together at his office, and each state his case to Mr. Terry, and he would examine each party carefully, sit in judgment, and decide the question for them, and they would accept his decision as final, and unite in paying such a fee for his services as was deemed requisite ; and so he practiced law as a kind of judicial manager, or mutual judicatory.

Men who study law are as varied in their talents and character and mental make-up as men who follow commercial or mechanical or other industrial pursuits ; there is likely, therefore, to be a grade of lawyers at the opposite extreme of the one to which we have referred. There are some in the opposite end of the scale, we know, who are called "shysters" ; they are, in their profession, what some men are who do not conform to the honorable rules of labor, who are called "scabs." I suppose that men who are admitted to the bar are technically understood to be men of good moral character, as a man who is granted a license to sell liquors is supposed to be or, at least, is techni-

cally required to be, a man of good moral character. A man went before the Board of Excise in New York, desiring a license for the sale of liquors, and he was told that he would have to bring some reference as to his good moral character; his other requisites appeared to be satisfactory. He looked up in astonishment, and asked, "What has a good



FIG. 308. SETH TERRY. INTEGRITY.

moral character to do with selling whisky?" and some lawyers, perhaps, may have the same idea; they might not expect or desire to practice law morally. The bad and dishonest habits practiced by this lower grade of lawyers have led some people to think that a practicing lawyer could not be an honest man, and that a strictly honest man would not practice law. We suppose there are honest merchants and honest mechanics and honest public office-holders—why not honest lawyers?

A lawyer may be talented, as keen as a razor, and yet immoral. If we are not misinformed, there are lawyers in large cities whose business it

is, or who accept it as a part of their business, to give advice to rogues in advance as to how they may commit their crimes and evade the punishment of the law—lawyers, in short, who advise villains how to be most villainous, and cover up their tracks. Hence, if a man wants to take a bribe, he is counselled not to accept it in the shape of a check, not to accept it in anything but money, and not to accept it apparently himself, but to have it passed over to some friend of his, who, perhaps, will receive just such another or similar service as an exchange for his part in this dirty work. Lawyers, doubtless, are like other people—graded from top to bottom. We have no idea that lawyers are any worse than other people; they may know better than other people how to do wrong and avoid detection.

If the people at large, aside from lawyers, were to become moral and correct in conduct, character and purpose, the lawyers would not have the temptation offered them that they now have to do rascally tricks. If a man accepts a temptation, there is also a tempter, and he is as bad as the one tempted.

Every day, if occasions offer, we advise young men professionally that they may study law and keep a conscience clean and clear, and practice law to the honorable end of life. If one-half of the accusations brought against lawyers for being dishonest are true, I know of no field so promising as that of the law with strict integrity, talent and culture sufficient to make one's excellent character available and well-known; an honest man among them will count; his services will be sought.

I had a man under my hands for an examination, and when I had finished, I said to him, "Sir, what is your profession?" "I am a lawyer," he said. I replied, "You ought to succeed well from the description I have given you; you ought to be able to command respect and keep a clear

conscience," I said. "Where do you practice?" He replied, "I practice in Springfield, Ill." This happened perhaps ten years after Lincoln's death. I laid my hand on his knee and said, "Then you knew Abraham Lincoln?" "Yes, I knew him well." "What about him as a lawyer and as a man?" I asked. He replied, "Mr. Lincoln and I were not on the same political side; I did not vote for him, and what I say has no political bias; but I was really glad when he was elected. He was a fine lawyer; he was getting all the best practice; he would not take a case into court which he did not honestly think ought to win, and when a client came to him and stated his case, if occasion seemed to him to require it, he would say, 'I cannot take that case into court.' 'Why not? I will pay you well for it.' 'Of course, that you are able to pay is well understood,' Mr. Lincoln would reply, 'but I cannot afford to take it.' 'Why?' 'Because you ought not to win; you cannot win honestly; I cannot try to help you win.' 'But I will pay you well for the work, I want to give my opponent all the law he wants, and I want you to help me win.' Lincoln would say, 'You have no money to lose in punishing this man; you cannot afford to waste \$100 in a case like that. Bring the man here to my office, and I will see what I can do toward making a settlement without the cost of a trial and a judgment.' So Mr. Lincoln would settle more cases out of court than he tried. In this way he would not smother his reputation by trying to help some villain hide his crime. The result was that Mr. Lincoln got nearly all the good practice in that vicinity, and when he brought a case into court it was tacitly understood by the bench, the bar and by the people at large, that Lincoln was on the right side and that he would get a verdict."

Men who practice on that principle rarely lose a case, unless it is

through the stupidity of the jury, or by the bribing, through friendship or by money, some members of the jury, and then a costly new trial may rectify it. It may be asserted, and perhaps without dispute, that there are less temptations for dishonesty and fraud in cases before court than there is practiced in commercial transactions, because before a court there is a judge, and the proceedings must be in accordance with legal forms. The judge often prevents questions being asked that might be treacherous, and lawyers that want to take advantage are often snubbed and sometimes rebuked by the court, and occasionally they are disbarred.

I have had a grocer's clerk tell me several lies or misrepresentations in regard to a fifteen-cent scrubbing-brush. If a lawyer misrepresents relative to a case involving hundreds of dollars and also reputation, it is not quite so mean as to tell two or three lies about a fifteen-cent trade. If A. T. Stewart had no other claim to memory and respect, he should not be forgotten for the fact that he established in New York and indirectly in the whole country, the one-price system of selling goods, which now prevails widely; it is now the rule rather than the exception. It used to be said that a man's coachman or cook could buy anything at Stewart's on as good terms as the millionaire master himself could.

THE CRIMINAL LAWYER.

Of course, all lawyers need general intellect, and the better it is developed the more capable they are. If, then, any lawyer requires clear Perception, a good Memory, Comparison and Causality, a criminal lawyer should possess these, but we think a criminal lawyer should have in addition large Conscientiousness to give him a feeling of justice and a clear sense of moral motive; he should also have large Cautiousness to make him wary, guarded and careful; also

large Secretiveness to make him able to trace criminal purposes, and to account for various acts of the criminal before and after the fact. A lawyer with small Secretiveness would have an idea that a person would take a straight line if he wanted to commit some crime. A man with small Secretiveness would have no idea that a person who wanted to crack a bank or rob a store or commit a highway robbery at a certain place, would start and go the other way, when he set out to do the work, and if it were proven that a man was seen going down the street at noon in an opposite direction from which the crime was committed, he would have no idea that he would slip out at some lonely place in the road, and go around the mountain or hill and double back uptown where he expected to meet at a given hour his victim or his opportunity for crooked work; but a man with large Secretiveness would be suspicious, and likely to think of all such double methods.

A criminal lawyer should have also a first-rate judgment of human character, should be able to appreciate the motives and purposes involved in a transaction. A criminal lawyer on either side needs the qualities that belong to a detective.

A lawyer who has Human Nature large, Secretiveness and Language large, will cross-examine a witness who is telling a lie, and do it in such a manner as to entrap the false witness. We are not now speaking of modest, bashful witnesses; they are sometimes perhaps unfairly treated by men who do not know anything but the thought of victory. A criminal lawyer ought to have large Firmness and Self-esteem so as to be persistent in his line of duty, and command the respect of all men. We hardly need to add that a criminal lawyer on either side should have a good memory to hold the knowledge of law and also to be able to carry in his mind the history of the case. He

should have good Language to express handsomely and definitely his thoughts. A court should not have to sit all day and listen to an untrained and uneducated man in his blundering methods of treating cases. Keeness of intellect and culture belong to such a profession. Eloquence, ordinarily, and a good memory, large Language and a fertile imagination are indispensable to complete results in that noble profession—the practice of law.

It is supposed that a lawyer knows if his client is guilty. Some criminal lawyers demand to know the whole truth of the whole case before they will touch it. I have frequently read of instances in England where a barrister would throw up his brief, and abandon the whole case in the midst of it because he had been deceived by the solicitor who had instructed him, and this act put a hundred feathers in his cap of honor.

Another abuse in the trial of criminal cases is the clogging of the progress of obtaining a jury for the trial and by bringing about a disagreement of the jury, or taking exceptions, and carrying the case to higher courts. In this State, cases which had been sentenced to execution by electricity have been sent to the Court of Appeals, and an effort was made to carry one case before the Supreme Court of the United States, and the men who did it were not ostentatiously trying to prove the man innocent; they accepted his guilt, and were trying to baffle the law, and make a miscarriage of justice through some technical flaw at a needless and useless expense to the State of many thousands of dollars. The wife poisoner, Harris, executed in 1893, and Dr. Buchanan, executed in 1895, are cases of shameful and costly delay.

Sometimes the indignation of the public makes short work of a circuitous and tardy management in court, and takes justice in its own hands; it is called "Lynch Law."

CHAPTER XLV.

THE RAILROAD LAWYER.

IN this field of practice the lawyer needs especially large Perceptives, because there is involved in matters pertaining to railroad construction and operation a mass of detail which requires recognition, not en masse, but in detail. It is a large business, hence a man needs comprehensive reasoning power, and especially Comparison, to enable him to adjudicate conditions, to appreciate differences and shades of differences between the rule and its execution—orders and their fulfillment on the part of the servants of the road. It requires also a first-rate development of the organs of Eventuality and Locality—the first to remember historical facts, the second to give him an idea of direction and distance.

He should also be endowed with a good development of the faculty of Constructiveness, so as to understand whatever pertains to the mechanical conditions, development and construction of roads, and all that pertains to switches, turntables, draw-bridges, etc. If I were to select a boy that was to be educated for a railroad lawyer I would get one that would make a good engineer, so he could understand anything about a railroad. I heard the great Daniel Webster make a speech in Boston in 1848 on a railroad car-wheel patent case, and I know the attorneys and clients had instructed him with models or illustrations in regard to the action of a car wheel in the process of cooling after casting. After he had been so instructed that a boy twelve years of age might have understood it, Mr. Webster stood up and explained it so poorly and made such a mess of it that the jury understood it better than he did, and smilingly nudged each other in the side while he was talking. Mr. Webster had a

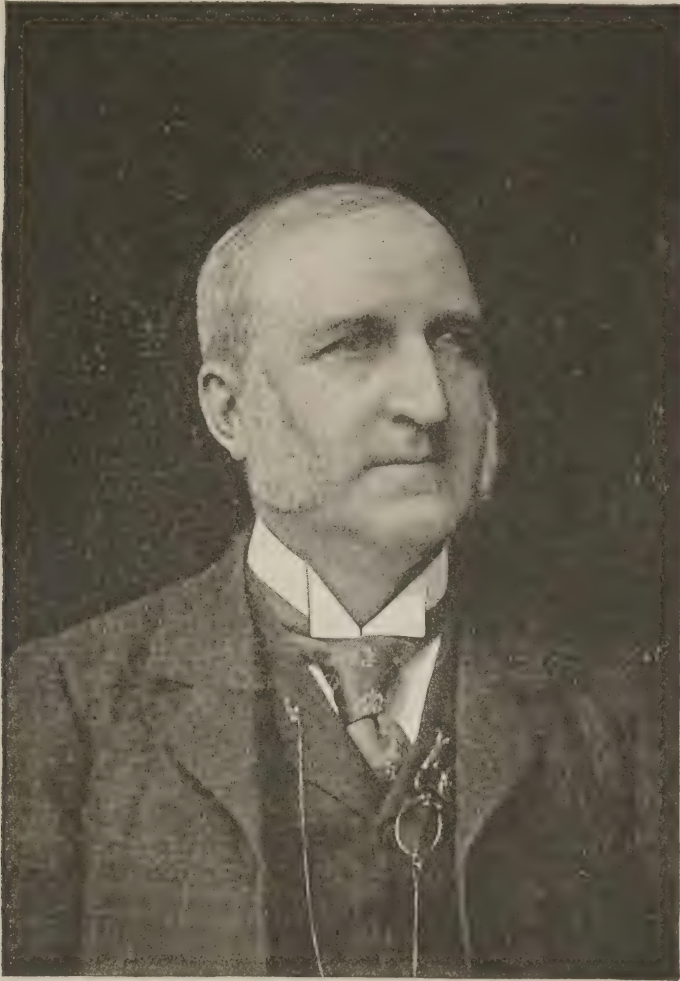
powerful intellect, but his Constructiveness was comparatively small. If a son of mine, fifteen years of age, with half the instruction Mr. Webster had had in this case, had made such an explanation of it I would have been ashamed of him. If the case had hung on Mr. Webster's statement on that point the client would have lost it, but the jury knew better about it than he did. Mr. Webster, Choate, Conkling, and other distinguished men, have been engaged to advocate important cases because of their high reputation—not because they knew a special case, but to add the weight of their great names. A good natural mechanic with half of Webster's general ability would have done twice as well in a case of mechanical invention. Mr. Ogden Hoffman, who in 1850 stood at the head of the New York bar, had spent some years at sea before the mast, and in maritime cases he was employed because he knew ship matters and the lingo of the sea, and sailors respected him; while a "land lubber" lawyer would show his ignorance of seamanship and fail to command a seaman's respect or elicit the truth from a witness.

A railroad lawyer ought to have also good financial capabilities, because large and intricate financial conditions are involved in questions which they have to consider. A man with good financial ability will manage a claim for injuries and get twice as much damages for his client, where they are properly due, as one would who had a small development of Acquisitiveness.

While I would give a lawyer in any field Benevolence and Friendship and Agreeableness strongly marked, it might at first thought seem that a railroad lawyer should have more

sternness than blandness, but we think a man will succeed better in dealing with human nature to have in character a friendly, kindly spirit. A

mellow and pliable, as if they wanted to oblige everybody, and when they were compelled to dissent would do it in a kind of tender and regretful



Sarony.

FIG. 309. CHAUNCEY M. DEPEW, LL.D.

man who comes into the court house like a hedgehog, bristling with quills, growling and snarling at everything that is said to him, is calculated to incur the dislike of every person in the court house, from the man who opens and shuts the door to the judge on the bench. I have known some lawyers who were apparently always

manner, and it has a wonderfully favorable influence on the jury to see a man act as if he wanted to be fair and just, and as if he were inclined to give every just phase of the subject a welcome. The lawyer from Springfield, Ill., who has been quoted in reference to Lincoln, said a case was being tried in which Lincoln was

counsel on one side, and the lawyer on the other side was trying to get a witness to answer a question, and the court objected to it, because he thought the other side would object, and Lincoln sat there apparently paying no attention, while the judge and opposing attorney were squabbling over it, and directly Lincoln looked around and said, "Your honor, I reckon it would be fair to let that in." The judge said, "All right; if you are willing I have no objection."

I would make the railroad lawyer a gentleman in his demeanor; it would serve to make life and litigation smoother. The railroad lawyer should have large Firmness and Self-esteem, so that he can stand in the presence of well-paid, able and eager opponents, and not feel small or act as if he felt small. I have seen a lawyer stand in the presence of legal and judicial learning and the sharp strife of the subject, and when he got a chance to speak he would say that he regretted that his learned brother on the other side had become a little warmer on the subject than was really necessary. It reminds me of the familiar old school book fable in which the blustering wind thought to strip a man of his cloak by force, but the harder the wind blew the tighter the man pulled his cloak about him. The sun tried to dismantle the man in a different way; he tried by pouring his calm and steady rays on the man's back, and soon caused him to take off and abandon his cloak.

THE REAL ESTATE LAWYER.

A real estate lawyer needs large Comparison, and he should have a good memory and good practical sense; it does not require much cunning, but the person should have a good development of Caution and Secretiveness, and especially large Continuity, so as to give him the patience and perseverance to trace titles back perhaps a hundred or two hundred years and follow it through all the phases of transfer and

redemption of tax titles, and whatever might be a cloud on the estate. In handling real estate nothing is to be taken for granted. Sometimes an estate is lost by some little technicality, by failing to have the papers verified before the proper authority; perhaps the notary did not belong to that county, and when that is the case, if the notary is not certified by the clerk of the court of his county and attached to the document, it invalidates the whole work. The real estate lawyer should have a good memory, to hold the laws that belong to his own State; he ought also to have the ability to hold knowledge of the statutes of other States. Of course if the real estate lawyer is an eloquent speaker it is all the better, but he can secure respect and success without it.

The late Samuel J. Tilden was a railroad lawyer and a corporation lawyer, and he made more money than almost any lawyer in the country in handling these massive financial cases. He was not an eloquent speaker; he was diminutive in altitude, not attractive in appearance, but he had a cool, clear head in regard to mechanical and financial matters that belonged to the railroad business. Mr. Tilden had made a bequest in his will to New York for a library, but his will was so defective that it has been seriously modified by litigation. It is sometimes said that a doctor who treats himself has a fool for a patient, and in more cases than one it has been proved that a lawyer could not manage a case for himself one-half as well as he could manage a case for another. A physician who has a wife or a child alarmingly ill generally confides the case to a man who has no particular interest in the person, lest his sympathy should warp his judgment or pervert his understanding. Chancellor Kent, the great authority on surrogate law in this country, made his own will, and it was broken in court as if made of pipe clay.

THE CORPORATION LAWYER.

The corporation lawyer needs a cool, strong temperament, with more of business capabilities than eloquence; it requires a legislative as well as a judicial mind. Corpora-

and find out if they have been correctly kept. In this State there are bank experts, who stand high, and are called on by stockholders to examine their affairs. The dishonest officer of the company, who has been



FIG. 310. SAMUEL J. TILDEN.

tions are based upon a special law or enactment in each case, unless it comes under the general law. A legislator needs to have a clear sense of the force of an enactment which he is constructing. A corporation lawyer needs to see and follow that which has been enacted, and to appreciate its application to the case in point. He should be good in figures and accounts and have a good commercial education. Some lawyers are expert in bank matters—in the examination of work of banks and corporations; will take a set of books

fraudulently using the funds of the concern, takes the hint and escapes to safer quarters when the expert is expected to come around.

PLEADERS, ADVOCATES, BARRISTERS.

The function of this phase of law is to take a case which solicitors or attorneys have quarried out and prepared for trial. In this form of law practice a man needs the literary faculties; also perception and a good development of the semi-perceptive organs. He needs large Language, to express his thoughts in a clear and

easy manner, and if he had a good development of Ideality, to enable him to embellish his thoughts elegantly, it would be all the better. He should have a Vital Mental Temperament, so as to bring a glowing enthusiasm to the work in hand. He should also have a good memory of historical facts, which would enable him to state the case as if he had been there and seen it all. Daniel Webster had a way (if it were in regard to some lighter matter it might be called a trick) of handling a case before a jury in such a way as to make it seem in an eminent degree noble and fair. He would state a case before a jury as he thought his opponent would naturally state it, and would bring forth some of what were considered the strongest points of his opponent, and he would begin the argument as if he were on the other side, and occasionally he had his coat pulled by his anxious client and told that he was on the wrong side. When he had stated his opponent's side of the question pretty strongly and frankly, he would say, "Now, gentlemen of the jury, that is the other side of the case as we understand it; if you will listen to me for a few moments I will endeavor to present our side of the case," and he would march through his line of argument like an army with flying banners, and the other side as he had stated it would look so slim compared with his masterful argument that he would thus compel a verdict.

I remember two lawyers in Hartford, Conn., who were generally employed on most of the important cases. One was a clear-headed, straightforward man without eloquence or any tendency to make an effort in that direction, but he was a solid thinker and a clear-headed jurist, and when he arose to address the jury he would lean over the table and point his long bony finger at the jury, and in a confidential way tell them all about it, and it was made so perfectly plain to the

jury that it was very difficult to dislodge what he had said. He was one of the lawyers that generally had a chance to get the right side of cases. The other lawyer was a tall, handsome, jolly, funny kind of a man; his name was Charles Chapman, and he generally had a full house when he was expected to speak. When Mr. Hungerford began his speech the crowd would leave the court house; everything there would be still and quiet, and for this reason what he said in his solemn, frank, honest, earnest way was impressed all the more readily upon the jury. The crowd would leave a sentinel at the window to give the signal when Mr. Hungerford had finished his presentation of the case and it was Charlie Chapman's turn to speak, and they would come rushing into the court house like sheep. Chapman would talk to the whole house, and would tell funny stories and anecdotes and have everybody in the house in a laugh, and he would try to ridicule and make fun of the opposite side and of Mr. Hungerford's speech. Chapman wore a white vest, and his bushy and abundant hair was brushed back and gave him a somewhat distinguished look, and he wore a large black ribbon as a watchguard, purposely spread out over his white vest, and, taking it all, he made an imposing appearance. But Hungerford generally got the verdict.

ADVISERS OR COUNSELORS.

These need large mental comprehension and experience to judge of the merits of a case; they need a cool and balanced temperament, also Caution, to make them prudent. A counselor or adviser should have large Conscientiousness and should aim to get at the truth and the bottom facts in the matter. There are a good many cases settled out of court, and if one of these advisers or counselors of the right kind gets hold of a case he will charge pretty good fees for advising and promoting a settlement, but it will be

better for the community and perhaps much better for his client that the case should be settled out of court.

LAWYERS WHO DRAW LEGAL PAPERS.

These need good scholarly talent, their minds should be well disciplined

of a contract, and let a dozen law students see how much each one could modify it in the smoothness of its statements without losing any of its power or force. We think it would be a matter of interest and advantage to a business man who has not been trained in the law to get



FIG. 311. WILLIAM M. EVARTS, THE EMINENT ADVOCATE.

and they should have legal training and culture and literary criticism. A man who has the requisite talent and culture, and is engaged in this line of the law, will draw papers that flow smoothly and cover all the points involved, and he will draw them in such a way that they will not seem offensive. Some lawyers draw papers in such a way that they bristle with indignant earnestness, as if one or both of the parties were swindlers and needed a barbed wire fence on both sides of the path. It would be a good mode of practice in the instruction of law students to give out the frame

counsel of some clear-headed legal adviser in reference to drawing business contracts, especially if he expects to have occasion to draw any for himself. This would doubtless save a good many litigations in the business world.

A friend of mine thought he would draw his own will. He had some literary capability and training, and he said in his will, "I give and bequeath my house and lot," and when he had completed the document he went to his lawyer, who was a personal friend, and submitted the paper to him for approval. The first thing

the lawyer said was, "You must *devise* your real estate; 'giving and bequeathing' will convey personal property, but will not convey real estate in the State of New York." That paid for the consultation fee.

PATENT LAW WORK.

In this line of work the lawyer needs to be admirably endowed with all the mechanical faculties to start with. In addition to that he needs literary capability, such as is required in the man who draws legal papers, because that is a part of the patent law business; but the core and backbone of his business is the mechanical capability. Some thirty years ago a patent solicitor desired rooms in our establishment, and in this way we learned a good deal about the patent business. We remember a case where a man had invented a printing press. He wanted to get a claim allowed for an inclined plane as a method of making the pressure in

printing. The patent solicitor told him that mode of pressure in printing was in vogue in Dr. Franklin's time and that he could not patent it, and if he could it would be of no use, as the "elbow joint," which had taken its place, was much the best. However, the lawyer showed him something about his press that could be patented, and he got that patented and in about six months he sold his patent for \$5,000. In this case the solicitor knew more about mechanical construction and more about the history of the printing press than the inventor did.

The temperament of the patent lawyer should be a calm one; he should have perhaps a predominance of the Vital Temperament with a touch of the Lymphatic phase. He ought to have a good share of the Motive Temperament, to make him energetic, strong and persistent. He ought to be moral, upright, just, prudent and self-respecting.

CHAPTER XLVI.

THE LAWYER IN GENERAL PRACTICE.

THE practice of the legal profession in its most exacting demands requires ample bodily constitution with a large, well-nourished brain, and a harmonious temperament. To be astute as a counsellor, sharp and clear as a critic in legal procedure, and at the same time able to display masterly forensic power, a massive, enduring, susceptible and magnetic personality are essential.

The following phrenological analysis was dictated to a reporter in the ordinary course of business, May 18, 1888, with no knowledge of the person or his profession, and with no expectation of publication. The portrait, with permission to publish the same in connection with the description of character and biography, has been obtained.

HARVEY D. HADLOCK.

You inherit largely from your mother, and by that inheritance you get a better nutritive system than you would be likely to get by inheriting from the father, because woman is better endowed with nutritive power than man, and so also are the feminine of the lower animals, because they have to manufacture nutrition for themselves and for the infant. Nature takes precious good care that there shall be no lack of nutrition where it is so much needed. The boy who inherits from the mother is likely to get better nutrition; he is likely to weigh heavier, and in his build will show it by having a longer body from the waist downward, and shorter, stouter limbs, and smaller extremities, feet and hands, and by having smaller features as compared with the

face and head; when a man inherits from his father he gets an exaggeration of the bony structure.

You have a brain measuring $24\frac{1}{2}$ inches in circumference and 16 inches from the opening of one ear to that of the other over the top, and 14 inches from the ear openings around the brow. The proper weight for that, as we study weight and size of brain, would be 205 pounds, which is

instant necessity come by intuition; you know what to do without knowing where it came from; it flashes on you and it is done or decided, and time and thought will indorse it. Occasionally men are brought into imminent exigencies and they must do something instantly, and you are better in such a pinch than you are anywhere else. No matter how well you can bring up the rear in the way

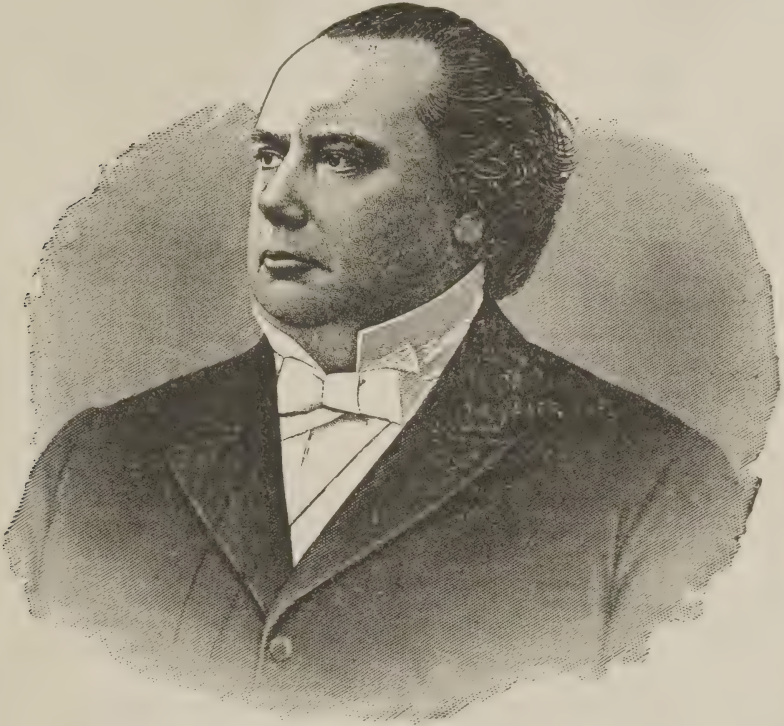


FIG. 312. HARVEY D. HADLOCK.

supposed to be the weight of body with which such a brain ought to have relation to give it support; you weigh 90 pounds more than that and hence can do extra work and not feel weariness.

You are known, and always have been, for intuitive knowledge or sense of truth which a boy can readily inherit from his mother. The best things that an organization like yours ever reaches in matters pertaining to

of logic, you can bring up these sharp turns readily. You have the power to see quickly your surroundings and to gather in knowledge by observation, and you have also the ability to aggregate your facts and co-ordinate them, and, like welding chain links, make one composite whole of it; so that your knowledge is like a system of railroads with a center, organized and all related, and the time tables bring everything around

all right; you organize your knowledge so that it is systematized.

You remember places. Geography to you is an enjoyment and you like to travel; if you had nothing to tie you down to business and to home, and the means to do as you would, you would do a great deal of traveling, and you would not run like a message on a telegraph wire; you would take it leisurely and make no long appointments ahead, because you might want to stay in a given country for reasons and take your time to get acquainted with the people and many things that might interest you. If you had your time on your hands you would not go around the world in eighty days.

Your memory of facts is excellent, and your language enables you to put into words that which you know of truth, and you are capable of understanding the particulars so as to make the case seem like history. As a lawyer you could talk to a jury as if you had been there and seen the whole thing, and they can hardly shake off the impression they get, though you do not say that you were there and saw it and know all about it. It looks consistent the way you state it, and the argument and the supposed meaning and the testimony are all so melted together that it seems to be pretty much all testimony. They take your argument for testimony, and it is not very easy to shake a jury's opinion that you are in the right. If you have an even chance with men of equal ability with yourself—we mean logical and knowing ability only—your sympathetic temperament, your intuitive way of looking at truth and your easy and persuasive method of expressing it, will carry conviction to people without their knowing exactly how it happened. They are sure of it, but they cannot go back and explain it to another.

You read character like a book; to you strangers are translucent, if not transparent; occasionally they are the

latter, and your impressions are not only quick and clear, but correct.

Your generosity helps you to carry with you an influence that is genial, and, like the light of a locomotive, it precedes you—not, perhaps, quite so far, but when you come into a room, before you speak a word most people will feel your presence and the genial influence of your magnetism, and since you understand people without introduction, if you speak to a person you bring upon him this knowledge of him in such a way that he feels he must answer to the best of his knowledge and ability. If cross-examining a witness you have a faculty of silent, mental, magnetic affiliation which makes him feel as if he were your friend, and what he knows would be all right if he were to tell it. Men on the witness stand are not very long recalcitrant under you, unless they are very able men, and the other counsel will sit like a hawk to object to your question; but you have skill enough to put the question in such a way that it will be legal and fair and yet insidious. But your Benevolence is one of the elements that enters into that result; your Friendship enters into the influence; your social nature has the nature of rosin when it is used as a flux to solder sheets of tin and make them one, and you carry a good deal of that element in all your ways of life. People are a good deal more willing to do what you ask them to do than if you were thin and crisp and dry and apparently exacting. You never have seemed to be that kind of a man. You sometimes ask people to please do that for you, yet you have a right to command them. You do not always command a servant, and they will run their feet off to serve you.

Your Firmness is large, but it is a more persistent element than an opugnant element; it is more like a line to hitch to the timber-head with which a man warps himself and his boat up to the dock than it is like a pull with a boathook that can both

push and pull. Your Firmness pulls; it doesn't push, and one of the troubles you have is to keep men away from you.

We would give you, if we could, a little more Self-esteem; so large a brain can take, and be benefited by it.

Your Caution is an influential element, rendering you watchful. You may not appear to be as anxious as you really are, but you will read over a document to see what it says, and then to see what it means and suggest modifications; you will have all the claims and the evidence, everything done that custom and law require. When you shut a door you try to see if it is latched or locked, and you sometimes go back and see if you have inserted some thought in a letter or an argument; you do not remember whether you put it in or whether you thought to put it in, but "sure bind, sure find," would be a pretty good motto for you, and while you do not go as if you were afraid, you meditate and consider whether you have done what the conditions of things require. Caution must be gratified.

Conscience is strong. You feel bound to be just. Veneration is large enough to make you devout in spirit and polite in manner.

You have Agreeableness, which renders you mellow in your methods; you sometimes make a soft, rising inflection of voice when you are conscious that you have been laying down the statement pretty strongly, and you put a drop of oil and honey at the close of it to make it palatable, and you generally think of what you ought to say before you get to the finish.

The Musical sense is strongly marked, and, therefore, as a speaker you ought to have a pleasant voice with a great deal of modulation. You could run, if we may use the term, the whole gamut of inflection and emphasis and impressiveness and gentleness, so that in listening to you people do not get tired or sleepy.

If they are not so much interested in the argument your manner will make them feel that it is a living subject, that the cakes are warm, and therefore they would be likely to stay.

Your Constructiveness qualifies you to understand mechanism, and also to combine forces and facts in a way to make your case malleable and movable. Constructiveness enables a man to weave the parts of speech into a sentence in such a way as to make it strong in one place and smooth in another, and graceful in another and true all the way; but a man with no Constructiveness chops logic, and everything he says and does has square corners, and he gives offense occasionally when he does not wish to and is astonished that he has done so, and consequently, under your style of utterance and composition, you remember that men have more than one faculty, that they have sensitiveness and sympathy, and aversions and timidities, and tastes and refinements, and prejudices and preferences that have to be considered and treated, and you can do this business in such a way as to conciliate those that did not mean to like you, that felt crooked toward you, because you could speak on politics, and the man that you were opposed to would take your arm and go to dinner after you had wrestled with your oppugnant topics through the whole meeting. He would not dislike you, but he would tell everybody not to vote for you nor with you. That is partisanship, but your manhood is larger than your creed, religious or political. If you were a minister they would ask you to come and help dedicate their churches and help celebrate their great times outside of your own denomination.

Your affections are strong; you love devotedly and win people other than women and children to think tenderly of you. Men do not stand at a distance and shake hands with you, as it is called, as with the end of a pump-handle; they like to come

right up and make it earnest, and they act as if they would say, "My regard for you is stronger than friendship; you are one that I like."

Ideality gives you a poetic sense, and it helps make you elegant and polished.

Your strong Combateness and Destructiveness—and they are none too strong—give framework and power to your thought and effort, while your friendship and ideality serve to smooth and polish that which is strong. Granite is very strong, but even that takes and retains its polish a good deal longer than marble does, and you have the elements of strength, but the public knows more about the sympathetic and the friendly side of your character. If you had an intelligent antagonist and you were to plead on one side and he on the other, he would know where the iron hoop of your logic impinged him; he would feel the strength of the argument. The public, not understanding and feeling an interest so much in the case, would see the grace and the urbanity and the friendliness that would seem to be embodied in expression such as, "My excellent, learned brother." Then you take off another piece of the hide that common people would not perceive as he would.

You have a sense of wit, and it is good natured wit; you dislike to use the scimeter of wit in such a way as to make the subject tremble and quiver under the blow. You like to use wit in such a way that even the victim of it will laugh in spite of himself, while the rest enjoy it on their own account.

With your wonderful vital system, your large brain, nourished and sustained as it is, your ample frame, with muscle as hard as rock, you ought to be master among men, and wherever you engage in the accomplishment of duty, it should be amply, broadly and earnestly done. There is no field of thought and theory in which such an organization as yours should not take a commanding position and easily win

success, hence your responsibilities are great, because you have the power to achieve great results. You need no help. With such health and development you can cut your masterful pathway to success.

BIOGRAPHICAL SKETCH.

It is but proper to state that the subject of this sketch, nearly thirty years ago, then a youth of twenty-two, though he had studied law, was inclined to enter upon a course of business, and on his way to carry out his purpose he called at the phrenological office in New York and had an examination by Nelson Sizer, and was told by all means to study and practice law. This advice prevailed and he entered upon a special branch of study connected with maritime law under eminent direction; and thus settling himself into his life labor, he has since been undivided in his purpose and work.

In 1888, at the age of forty-five, he again called as a stranger and the description was given him by the same person, which is herewith produced, with no idea who he was or what was his pursuit. His history and work fully justify the phrenological predictions on each occasion.

Harvey D. Hadlock was born at Cranberry Isles, Me., October 7, 1843, and was the son of Edwin Hadlock, whose ancestors were among the early settlers of New England. Harvey's grandfather, Samuel Hadlock, was born in Massachusetts, purchased the most of Cranberry Island, where he engaged in shipping, and acquired a large fortune.

Harvey obtained his education partly by private instruction, then in the East Maine Conference Seminary and at Dartmouth College, and was in 1865 admitted to the bar in Maine; three years later he was admitted to practice in State and Federal courts in Nebraska, and in the same year also in Boston, and opened an office in that city. In 1869, being called to New York on important litigation pending in the United States Circuit

Court, he was admitted to practice in that State and in the Federal Courts. In 1871 he was called to Maine to advocate the construction of a railway from Bangor eastward by way of Bucksport, and in 1873 he settled in Bucksport, where he was engaged in important railroad cases, and remained in that town for eight years, and won a prominent position at the Maine bar. From 1881 till 1887 he resided in Portland, Me., adding to his reputation as an able advocate of important railroad, patent, and maritime, as well as criminal cases. In 1887 he returned to Boston, where he now resides, holding an office also in New York; his practice extends beyond New England and New York. He devotes his wonderful powers of body and of brain to his professional work with unremitting vigor and industry, and his recuperative powers, which are of the highest order, enable him to follow case after case with unwearied effort and with most brilliant results. As a rule he works without the aid of assistants, rarely takes notes, but trusts to his unfailing memory.

Mr. Hadlock, though very large in frame and figure, is not fat. He is a rapid and easy walker; he eats but two meals a day and his food is more nitrogenous and phosphatic than carbonaceous, hence he makes bone, brain and muscle, real working power, rather than adipose, and has no waste material.

Weighing nearly 300 pounds, with a chest measuring 52 inches without clothing, and standing almost 6 feet high, with a head measuring more than 24 inches, and having an amiable and generous face, his is a commanding figure even among great men, and by the breadth and clearness of his intellect and the force of his will, his arguments have a wealth of detail and accuracy, sustained by an unfailing memory and a masterful logic. Though very large in brain and body, he is compact and elastic in fiber; he works easily, and while every faculty is alert and vigilant, his voice is rich,

full and flexible, and often rises to a point of commanding eloquence; it is not strange that at an early age he has reached an acknowledged rank as one of the first of living advocates. To the Physiologist and Phrenologist his success is recognized as the natural result of one of the largest as well as one of the very best of organizations.

Without knowing his name or pursuit, our phrenological analysis, made in 1888, provides for and predicts all he has done, and we now express the belief that his manifestation of power and attainment of popularity have but just begun.

TO ASPIRANTS FOR THE BAR.

Many young men aspire to be lawyers, some of whom have the talent, others lack the power to make themselves skillful and successful. A man can be an office lawyer without a great deal of bodily vigor; if he has a good intellect, even without force of character, he may understand law and help in preparing cases or in transacting legal business in an office, or assist quietly other lawyers in trying cases, but to stand up before a court where the interests of the public are at stake, a lawyer should have brain power enough to be equal to any emergency, equal to any talent that will be brought against him. He should have the studious tendency to acquire the requisite knowledge not only, but should have memory to hold his knowledge, freedom of speech, and a good oratory, that he may give justice a fair show in its struggle against fraud and unrighteousness, and so be able to vindicate the rights of the public and of individuals. A lawyer may be sound, but he should be also quick. Some are slow and wearisome in handling material, in making quotations and presenting facts to court and jury, thus wasting public time and wearying public patience. A lawyer should have good common sense, know as much as possible of everyday life, and if he has wit and humor it will aid his success.

A public sentiment has obtained foothold that a lawyer needs only tact, keenness, cunning, and even unscrupulousness, and by such persons the law has been perverted. A citizen acting in the capacity of an officer of the court in the practice of the law has no more right to take half of the money which a burglar has stolen from a bank, and use that as a fee to thwart justice and law in defending the villain who committed the robbery, than he has to help the burglar take the money; yet every month there are cases in which able counsel, endowed with talent and cunning, aid confessed scoundrels to escape punishment, and divide the spoils with the villains; and public plunderers, who escape with their booty, employ men to defraud justice in their cases; and talent, with moral worth either absent or in abeyance, lends itself to such nefarious work. We advise persons of only medium talent and slender constitutions to avoid law as a profession.

The normal ardor of youth prompts not a few young men to aspire after the law as a profession, little thinking how much is required to deserve and win success. A young man who was under my hands professionally asked me if I thought he could become a

first-rate lawyer. I said no! Then he replied, "I will not undertake it, I wish to be first or nothing." "Can you be first in any desirable pursuit?" "First is high up, and it takes body and brain, health and education and extended culture to stand in the third rank among lawyers."

I asked him to name six first-class lawyers at the New York bar. He named two and hesitated about two more, and was amazed. I asked him to name several second-class lawyers. He mentioned eight or ten and made up his mind that third-rate lawyers occupied no mean rank. I told him that time and study would enable him to hope for a place in the outskirts of the third class, and it would cost him his best efforts, industry and correct habits to hold a worthy rank among such men.

Being ambitious to rise you might be confronted in a case with several men of massive body and brain, highly educated, amply equipped with extensive reading, broad in logic, polished in rhetoric, full of resources and perhaps unscrupulous. Have you the ability to grapple in debate, in sarcasm, insist and repartee with such men at their best; or would you be at the mercy of these masters of the bar?

CHAPTER XLVII.

LAW AND SCIENCE.

THIS is an age of "specialism"; it is not only one of the signs of the times, but is inevitable as things are now constituted.

Formerly professors of chemistry would also teach physics, and sometimes had time enough to pay some attention to other branches; nowadays both sciences are so large and so comprehensive that no man dare attempt to master more than one or

two subdivisions of either. Organic chemistry, or, as it is now called, the "Chemistry of the Carbon Compounds," is so multiplex that a whole lifetime's work can be expended upon even one small part of the subject, as evidenced by the epoch-making work now carried on in Germany, to which we owe such invaluable medicines as "Antipyrin," "Acetanilid," "Sulphonal," and the like. In

physics, again, we have observers devoting a lifetime in settling such apparently simple things as "melting points," or "vapor densities," or the liquefaction of air and other gases; by means of such researches, nevertheless, our great men have been earning for themselves an undying name, and the applause and thankfulness of their less scientific, comparatively unskilled fellow-citizens.

The same necessity exists in medicine and the collateral sciences, because the advance of knowledge is so fast and so extensive that no one has either the brain or the time to acquire and utilize all of it.

We thus see, by parity of reasoning, that "specialism" must also invade the legal ranks if lawyers are to be fit to handle any but the ordinary line of cases. We have, it is true, insurance, real estate, admiralty and other branches of practice, but nowhere do legal luminaries exhibit themselves to such disadvantage as in scientific cases involving technicalities.

What do lawyers know of the "Torcular Herophili," or the membrane of "Descemet"? How can they distinguish between "distal" and "proximal," or know the difference between the "mesoblast" and "hypoblast"?

We see the absurdity of things when an awkward landsman wrestles with nautical lore; in science it is less obvious to the common folk, though a still greater puzzle to the bar.

In electricity, again, what does he know about "E. M. F." and "volts," "ampères," "coulombs," or "calories," or why Ohm's formula, $C \times R = E$, is true, or what it means?

Worse yet is chemistry, with its "Benzanilide," "Methylacetanilid," "Methyloxychinazin," now, for short, called "Phenylmonomethylpyrazolon," all worse than Choctaw to the uninitiated.

No lawyer can tell what moment he

may need just such special knowledge, so conspicuous by its absence in most members of the bar, a large part of whom, we fear an *increasingly* large part, have not enjoyed a liberal education, and are, therefore, devoid of even a smattering of the things outside their own sphere.

In cases of toxicology and morbid anatomy, where life and reputation hang in the balance, the tables are often turned by a correct understanding of some small detail, as in a recent New York poisoning case, *Carrlyle W. Harris*, truly a *cause celebre*, where a conviction has been reached.

No lawyer can make people see what he himself does not understand thoroughly, and no doubt many convictions and acquittals have been reached, contrary to justice, purely through the inability of counsel to do their best in such points.

An example is a very celebrated recent English poisoning case, where, though the jury rightly convicted at last, yet it was with some hesitancy, due solely to the fact that the skillful quibbling for the defense had befogged the jury, by successfully confusing the pathological appearances in arsenical poisoning and those in some cases of non-toxic Enteritis. The medical experts of the Government noted this attempt and urgently advised calling witnesses in rebuttal, who were present in court, but the lawyers could not be made to see the point, and so nearly lost their case that the wretched culprit, an unfaithful wife as well as murderess, succeeded in getting her well-merited sentence commuted.

In the New York poison case referred to the defense were so obtuse as to produce affidavits in court purporting to show the "opium habit" of the unfortunate victim; not seeing that addiction to opium would make her comparatively insensitive to the drug, and thus, by use of it, having experience of it, would not be at all likely to take an overdose, thus reducing the probability of their *own*

contention that she accidentally took such overdose! Again, her addiction would cause her to need a much larger fatal dose if given to poison her, and as she was proven and admitted to have died by morphia, these people's affidavits only weakened their own side, and proved that the victim was given a still larger lethal dose of the drug than at first supposed, no doubt greatly to the amusement of the prosecution's experts.

In the rapid advancement of science as connected with the development of chemistry, physiology, electricity and mechanism it is becoming every year more important that the great profession of the law, which has to deal with every phase of human life, in its joys, hopes, hardships, property and crimes, should have such extended and minute information in connection with these great interests as shall secure speedy justice to clients and the public. When some great murder trial is occupying the court thirty or forty days in quarreling over the technicalities of physiology and chemistry as applied to cases of injury or poisoning, other pressing public business has to wait for the tedious litigation which, were it in the hands of judges and lawyers who are competent scientific experts, could be done perhaps in a tenth part of the time, and with much more certainty of just decisions.

In this age of electrical work applied to lighting cities and the propulsion of cars and machinery, and even the instrument for the execution of criminals, what wasted time and manifestation of misinformation and ignorance have been ventilated in legislative halls and in courts of justice within the last five years on the subject of electricity! It is not enough that the parties pro and con shall bring in their chosen and possibly interested expert witnesses; they will

disagree before the court. The lawyers and the court ought to know enough about the subject to handle these expert witnesses who wrangle in disagreements in their testimony as to the merits of the question.

There are no finer minds than are engaged at the bar, and those who have the talent and the general education qualifying them for high positions at the bar and on the bench should take special training in physiology, anatomy, toxicology, chemistry and electricity, so that in such questions there may be some persons present besides interested witnesses who know enough of the principles involved to reach justice by a straight line and a short one. For instance, in the eight thousand lawyers of New York City there should be at least twenty-five lawyers, men of ability and general education, who should be so thoroughly trained in those scientific fields of inquiry as to be able to talk microbes, antiseptics and anæsthetics and related topics as clearly as professors in medical colleges understand them, and such would be called on as expert lawyers; and then expert physicians, anatomists and electricians might come before them, and lawyers and court would understand what they were talking about as in common cases they understand the common and statute law. This would be a saving to clients, to the community in the time of courts, and a means of securing justice to all concerned. The thought of clearing a man by hook or crook if he is guilty, or of condemning a man because the District Attorney is ambitious to win the case, whether guilty or innocent, adulterates the court of justice to one of fraud and injustice.

A golden arch over the seat of justice in a court room should be made of these words: "*Fiat Justitia, ruat cælum.*" Let justice be done though the heavens fall.

CHAPTER XLVIII.

THE CHRISTIAN MINISTRY.

A MINISTER of religion must treat the human race as he finds it. Few men approximate perfection, and therefore the ministers are likely to follow in their type of talent and character the drift and scope of average manhood, and if a man who would be a minister is not "perfect, thoroughly furnished unto every good work," he will not be able to approach everybody so acceptably as would be desirable. A man who lacks courage and force of character cannot understand and properly deal with brave, earnest characters. The rough element of life would be out of his reach. And those who listen to the preacher will be affected very differently by different men. A minister who is full of facts, who describes vividly everything that is seen in nature, will find those of similar mental development following him with interest and pleasure. The one who has a high, square forehead and is inclined to be logical will find but few who will be able to swallow the whole corn that he will give; it will need to be ground into meal before the birdlings can swallow it. In a mechanical town where everybody has large Constructiveness and the other mechanical qualities, the minister will be much more useful and popular who is ingenious and understands every mechanical law and readily takes in all the methods that are connected with the various mechanical interests of the place. Dr. Chalmers was wonderful in his development of the mechanical talent, and he

had large Sublimity and Ideality and Reverence, and he often delighted his hearers, especially the learned in illustrating Divine power and truth by the great mechanical laws of the universe, which carry on the functions and affairs of

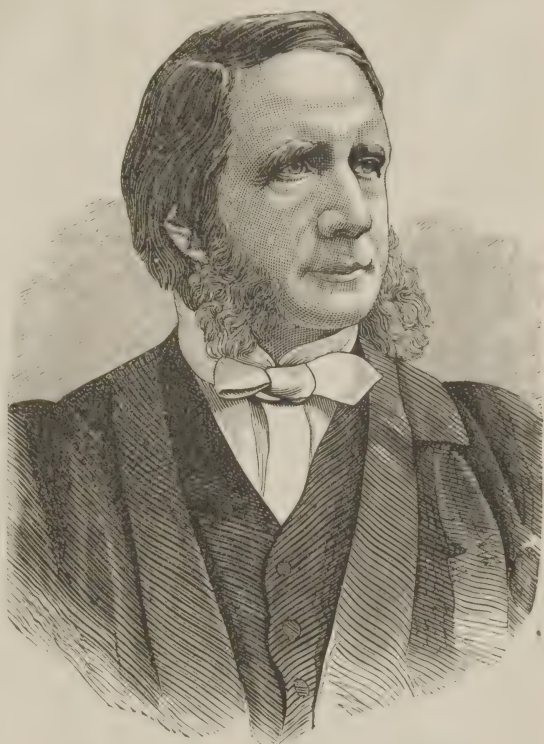


FIG. 313.—REV. RICHARD S. STORRS, D.D.

Born in Massachusetts in 1821, graduated at Amherst College in 1839, and at Andover Seminary in 1845. Settled in Brooklyn, N. Y., as minister of the Church of the Pilgrims in 1846. He is an accomplished scholar and orator. His sermons, delivered without notes, are finished productions, and deserve to be classed with the most able and polished of pulpit efforts. His learning, eloquence, great talents and high character have given him an enviable position among the foremost religious teachers of his time. He has a powerful body and a large head, with all the moral and religious organs amply developed.

the planetary world. A minister who is very devout will lead those who are

devotional; a man who is very sympathetic will have in his following those who are of the same type; if he is firm and stanch and lays down the law as if he were "the end of the law," he will have clustering around him those of similarly formed heads and similar dispositions. A minister with lordly self-esteem will have the friendly support of proud and high-minded people; those who have dignity and strength and great aspirations will form a body guard around such a man; they will feel that he wields the truth of God as a mighty man; but those having a less development will feel that he is arbitrary and too full of authority. A minister who has Approbateness, Friendship and Benevolence, and large practical organs will invite and lead the weak and the unlearned, and do them a world of good. A minister who is not social will not be able to meet the claims of those who have sociability; there are ministers who go to a funeral and they will talk in such a dry, hard way, and teach the people that they must yield to the Divine will and bow in humble submission to the authority of the Lord Jehovah because He "doeth what He will with His own." But a minister with large social organs will speak of the tenderness of the Master among the poor and the afflicted, how He raised the widow's son and the daughter of Jairus. "He went about doing good, binding up the broken hearted," and when, at the tomb of Lazarus, Jesus wept, the people instantly caught the spirit and said, "Behold how He loved him!"

As all these different degrees of development and character, socially, executively, morally, intellectually and mechanically in the community must be taught by one who can take into account the peculiarities of the people, the one who is very highly developed in all the departments of mental character, could, on the right hand and on the left, "rightly divide the word of truth," so that each should have "a portion in due season"; like

a master musician he could touch every string of the human harp.

But who, then, could preach? Where could we find a man who in all respects is perfect and able to take in the conditions of all men? Therefore in looking among a class of theological students preparing for the ministry, it is interesting to study the different types of development. I had the opportunity of delivering a course of lectures on Phrenology to a class of theological students in the city of New York. A certain number of the students of the Seminary desired to know what Phrenology could do or say that might be of service to them as preachers of the gospel; and I would arrange a few of them and show them to the class, and tell how this one, with a heavy, square forehead, would preach the logical phases of truth; another, with a prominent brow, the historical and the practical; another, with high frontal tophead, would teach the sympathetic; another, with the broad temples, the esthetical; another, with a full backhead, the social; another, broad above and about the ears, would be a Boanerges and stand forth like Peter and Martin Luther and show his power; and it seemed to awaken in them wonderful interest. They recognize that the descriptions of the persons under criticism were just.

But a man of pretty well balanced mental constitution can do fairly well in all the departments of mental development which fall within the circuit of an ordinary community of well ordered citizens, ranging from the top of the scale of culture and education down to the man of the merest rudiments of the common school. A genius becomes a specialist in theology, as do those who lead in science and mechanism.

It will be noted, perhaps with pleasure, as it has been by me, that the Episcopal service seems to have been adapted to the learned and the unlearned. The prayer book has been

accused of tautology, but it may be explained and commended on the principle that it was written to meet the expectations of the learned and the needs or wants of the unlearned. For instance, "The Scripture moveth us in sundry places to *acknowledge and confess* our manifold *sins and wickedness*, and that we should not *dissemble nor cloak* them before the face of Almighty God our Heavenly Father, but confess them with a *humble, lowly, penitent and obedient* heart; * * and although we ought at all times humbly to acknowledge our sins before God, yet ought we chiefly so to do when we *assemble and meet together*, * * * and to ask those things which are *requisite and necessary* as well for the body as for the soul. Wherefore, I pray and beseech you as many as are *here present*," etc.

In selecting pursuits for persons who are under our hands, if we find one with rather strong moral and religious qualities, then we study to see whether he has the intellect to acquire the learning necessary for the ministry, the memory to retain it, the language to express and teach it, or the power of reason to argue it and enforce it. We study to see whether a man has mechanical faculties, Constructiveness, Acquisitiveness, Secretiveness and the faculties of executiveness. A minister with these faculties will go into a poor parish that has got behind in its finances and arrange to have a sinking fund established and the debts paid, and thus he will build up the parish by having secular wisdom and business skill. We like to see a preacher who has a strong side head, courage to meet and master, and power to argue and discuss, and ability to enforce what he thinks is true and show to people of energetic dispositions that he is a man of God who has courage and fortitude and is not afraid of the "face of clay." Strong men have respect for strength.

A Catholic priest was under my

hands for an examination. His dress indicated his profession. I said to him: "If you had been educated in architecture you would have been distinguished as a builder." He replied: "My Bishop calls me the architect of the diocese and sends a priest to relieve me of my parish work, and I go wherever in the diocese a church or other structure is to be built. I make the plans and superintend the work until it is completed, and then, perhaps after a year's absence, go back to my parish." The men engaged on the work of constructing those buildings would entertain an enhanced respect for the priest who knew their business better than they did themselves, and also for that which belonged to his sacred office.

If a man is tender, gentle and patient in leading people to think of religion, he will do well enough for such as he; but for us who have to struggle with the robust obstacles of life, who have to fight the rough sides and the stern facts of life, who are hedged about with manifold difficulties and dangers—this gentleness may do for men who are nicely housed and are pursuing the gentler and more refined professions and pursuits of life; but we who build railroads and quarry marble and granite, who fell the forest trees and make it into lumber and raft it down the roaring streams and get it ready for use in civilized life, ours is a rough life. The lumberman and the miner need something besides gentleness to command their respect and lead them to new lines of thought.

I suppose if a man were to go into the lumber regions as a minister and missionary, and could take an ax and fell a tree without stopping or missing a blow, he would command the respect of the men who wield the ax. They would say: "He is a brother; he knows what hard work is; he has been in our footprints and knows our woes and work and want."

CHAPTER XLIX.

THE CHRISTIAN MINISTRY.

REV. LYMAN ABBOTT, D.D., PASTOR OF PLYMOUTH CHURCH.

THIS is a strong character, connected with a sensitive, intense, enduring, but not very strong bodily constitution. He is tall, thin and wiry; like an umbrella frame, strong and enduring for the amount of material of which it is composed. The brain is the most conspicuous feature of the organization. The head, which we judge to be 23 inches in circumference, rises high from the opening of the ear, and it is also lofty above the eye. Sometimes a head is high on a line drawn from one ear to that of the other over the top, and it slopes down and becomes pinched and narrow in front. Such a man will have a great deal of character, but not much talent. He will be headstrong and proud, perhaps severe, but he will lack the sympathy, the ingenuity, the imagination, the logic, the comprehensiveness of mind, and retentiveness of memory. There are heads that wear large hats, but the largeness is mainly developed in the region of the propensities, pride, prudence, policy and perversity of temper. But this head is amply rounded and massive in front, and it is not wanting in the central and posterior portions.

The word intellect expresses more of what Dr. Abbott is than any other. That embraces perception, memory, analysis, logic and intuition, and the power of expression. He is a thinker par excellence. His large Comparison enables him to dissect a topic into fiber; and then his logic enables him to braid the fiber as we do a whip lash, and give it another form of power.

He has large Mirthfulness. He sees the incongruities and absurdities in people's reasonings or in their con-

duct. He must be good in repartee, not necessarily a joker, but he responds sometimes in a quiet way to the utter vanquishment of his adversary, yet the adversary will laugh.

This is a bright intellect, not merely strong like a trip hammer, and it has brilliancy, alacrity and criticism. It is more like a piano than like a bass drum.

He has large Constructiveness, which has less to do with the combination of things physical in the way of mechanism than in the combination of thoughts, statements, arguments and mental forces that minister to results. A complex intellectual problem is not mysterious and confusing to him; he comprehends it. Then he devises the means to make abstract things practical, available and appreciable. He has a disposition to simplify truth rather than to pile it up in masses that astonish and amaze without that analytical definition that makes it understood. When we look at a brick wall half a mile off it is a great red mass, in one solid piece like the Rock of Gibraltar, but when we approach it nearer we see there are courses and tiers, and these tiers and courses are divided into sections eight inches long; so the mass is defined; the sum total is reduced to its constituent elements or factors. It seems but play to a man like this to take a great knotty subject that has puzzled thinkers and expounders for ages and disintegrate it, show its constituents, make it simple. The greatness consists in comprehending the massive subject, and the skill consists in defining and illustrating it so that the common thinker sees it in a new light. Constructiveness, Causality and Comparison are the organs that

do this work, but Ideality and Spirituality enable him to appreciate the theme.

The height of the front part of the top-head shows large Benevolence. It gives a beneficent feeling, the

blind side of him, it is those he has learned to love and respect, and whose errors of judgment may lead them to ask more than is proper.

Spirituality being strong gives him a theoretic insight into moral topics.

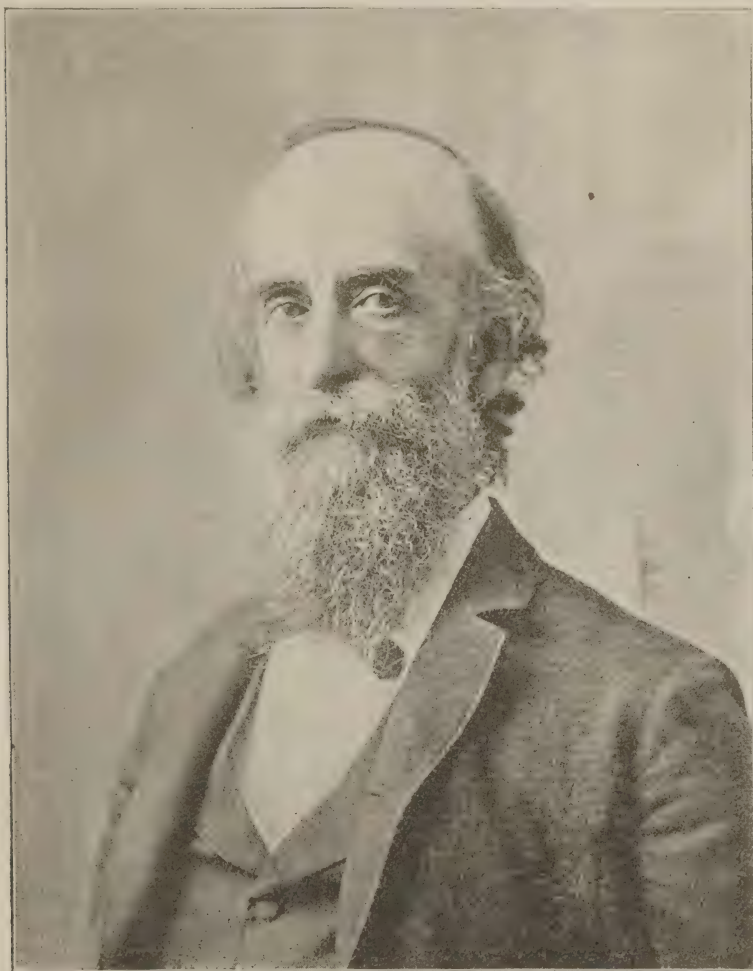


FIG. 314.—REV. LYMAN ABBOTT, D.D.

tendency to do service that shall be lasting. He may not hand out a dole to a beggar unnecessarily as readily perhaps as his sympathetic predecessor would have done; but he has a most wonderful insight into human character. He reads men like a book; those who are total strangers. If anybody get the best of him, or the

Sometimes theological people talk about spiritualizing subjects. He has the power to logisticize and spiritualize, to take the local framework of the truth and to see also its inner and beneficent elements as well.

Hope seems to be strong. He dares to undertake a good deal that

another man with equally large Caution might hesitate to do. He is prudent; he is economical. He has a sense of value; and as a business man he would take good care of the financial side of his affairs. He has belief in financial integrity as regards business, but it is subordinate to the moral law. He would naturally think that men who were trying to square their lives with the higher equities and spiritualities of life ought to be honest and truthful in the common daily affairs. A sharp business trick by a man who professes to be amenable to the higher laws of living might be understood by him to be in accordance with a given mental make up, but, nevertheless, it would seem very incongruous. With his Acquisitiveness, he understands business principles better than many clergymen, and would appreciate the temptation that financial prospects might present to a man who sought to be true and faithful; yet with his large Conscientiousness, Veneration, Benevolence and Spirituality he would be able to raise himself above the temptation, and perhaps, at the same time, feel a spirit of leniency toward one who was not so well endowed in the moral elements. He has logic enough and reasoning power to understand that a man may be one sided in his mental make up, possessing strong temptations to do that which is not according to rectitude, and alternately be honestly enthusiastic in his religious emotion and be true to his nature in his religious manifestations. Men can have strong passions, and sometimes yield to them. They may have strong religious emotion, and generally carry these above the lower temptations of life; but if they fall out by the way, they may cry out as one did of old: "O wretched man that I am, who shall deliver me from the body of this death?" Great natures are apt to have great defects or excesses in certain sides of the character.

A side view of this head would

show the major part of the brain forward of the ears; and if a line were drawn from the center of Causality to the center of Cautiousness it would show an ample elevation upward, a filling out of the top-head indicative of the higher moral senses.

His legal training working with such an analytical and crisp intellect as his, give him the ability to present his moral topics in a more clear and vigorous light than most quiet speakers and writers are able to do. He has a vivid imagination, but it does not get out of the logical harness. To him, intellect is as ballast to the ship; while the sails of imagination may be filled with heavenly breezes the ballast keeps the hull steady. Therefore intellectually he is able to sail pretty close to the wind; that is to say, work up against the wind, taking advantage of the opposition and converting it into headway.

He must be a very able debater; and the clearness and vigor of his statements will be found everywhere in his writings. He can find fault with people; at the same time he does not do it in a way to exasperate them. His opponents will accept his criticisms and smile at their own defeat because it is so fairly done, so good naturedly accomplished.

There are many other points we might bring out advantageously if we had our hands on his head. If his life and health are spared until man's allotted three score and ten, he will continue to rise, broaden and establish his claim to intellectual supremacy among his compeers as a teacher in the natural ethics of the higher life. If he had more body, more blood, more impulsiveness, he would be a more popular orator and meet the wishes and inspire the admiration of the middle and lower lines of human development; and yet, where he has personal contact he allies people to him very intimately and becomes an elder brother and master in that field.

The short biographical sketch which we append will show the rank he holds among thinkers.

Dr. Lyman Abbott was born in Roxbury, Mass., December 18, 1835. In 1853 he was graduated at the University of the City of New York, after which he studied law, and in 1856 entered into partnership with his brothers Benjamin V. and Austin. Finding the legal profession uncongenial, he studied theology with his uncle, the Rev. John S. C. Abbott, and in 1860 began his labors in the ministry. His first charge was at Terre Haute, Ind., where he remained until, in 1865, he was chosen secretary of the American Union (Freemen's) Commission. This office called him to New York City, and occupied him until 1868. A year later he devoted himself especially to literary and journalistic work in connection with Harper's publications, but it was as editor of the *Christian Union* in after years that his name became familiar in religious literature. On the *Christian Union* he was associated with Henry Ward Beecher, and after that distinguished preacher's death he became chief editor, and later his successor in Plymouth Church. He is the author of several well-known religious works, and wields a very marked influence among the intellectual classes in the American church.

Dr. Abbott has given not a little attention to the study of the human mind, as his philosophical type of organization would incline him to do. Like the great man to whose place he was called after the former's death, he discusses the relations of man to his Creator in the light of his mental constitution, and employs the facts of science to illustrate his propositions. It may also be news to some of our readers to learn that he is the author of a small book devoted to the subject of human nature. An abstract of a sermon preached by Dr. Abbott recently aptly shows his familiarity with the subject, and indi-

cates the power that such familiarity may impart to preaching.

TURNING SIN INTO RIGHTEOUSNESS.*

"The writers of the Old Testament were spiritual geniuses. They were voices through which God spoke to the world. There is danger that we shall read the Bible too literally, because danger that we shall stop at the letter, and not get behind the letter to that which was in the thought of the writer; there is still further danger that we shall not get behind the thought of the writer to that which was in the thought of God; but there is no danger that we shall ever read the Bible promises as meaning more than they appear to mean. The danger of literalism is a danger of belittling, not of enlarging; danger that we shall halt at the word of the poet and not see the mind of the poet—still less the mind of God that lies back even of the mind of the poet.

"What is a sin? Not the deed that is done, not the outward thing, but the spirit and the motive that it springs out of. It is not the prinking before the glass that is sinful; it is the vanity that makes the little girl prink before the glass that is sinful. It is not the good dinner that is sinful; it is the gluttony that is sinful. It is not the energy and assiduity and skill in acquisition that is sinful; it is the covetousness that lies back of that and inspires it and makes it mean, that is sinful. It is not what I have done that is sinful. It is I myself, it is that which is within me—that is the sin. And so the question in my soul and in your soul, I am sure, is this: How shall the evil in me be made good? Is there no way? We do not ordinarily think so. We say, Oh, if I could get rid of this vanity, of

* Preached by Dr. Lyman Abbott at Plymouth Church, Brooklyn.

TEXT—Come now, and let us reason together, saith the Lord: Though your sins be as scarlet, they shall be as white as snow; though they be red like crimson, they shall be as wool.—Isaiah i. 18.

this pride, of this passion, of this ambition! But God says, I have something better for you; you are not to get rid of your vanity, your pride, your passion, your ambition; I am going to turn them into goodness for you; your sins, the things that are in you that you hate, they themselves, are to be turned about, transformed, made powers for beneficence, made powers for glorification. There is not a faculty or power in man, no matter how high and noble it is, that may not drag him down. What a God-given faculty is that power of conscience that sets a standard to a man and brings him to it and holds him there! But how cruel it has been! It built the Inquisition and lighted the fires of persecution. What a magnificent faculty is religious faith, that lifts a man up toward heaven and brings him face to face with God! But if it were not for the power of faith there never would have been superstition in the world. How it has dragged men down! What a sublime and glorious faculty is hope! How it buoys men up and carries them through the storm! And yet you business men know that there is no more common cause of bankruptcy than too great hopefulness: men making promises that they never can fulfill, and have no good reason of being able to fulfill. Hope has ruined more men in business than any other faculty, I suppose.

"It is a good thing to have a good appetite; a good thing to have an enjoyment of the animal nature. God gave the animal nature to be enjoyed. The animal nature itself can be lifted up, transformed. You remember what Fowler said of Henry Ward Beecher—'He is a splendid animal.' If that had been all that could have been said of him, it would have been a very sorry compliment; but it was a very great testimony as far as it went. A man is a better man for being a splendid animal if he has a splendid soul to match than

if he is a poor animal. Acquisitiveness! The love of money is the root of all kinds of evil. Yes, but the love of money is the root of a great many kinds of good. The love of money sharpens the edge of the assassin's knife, incites the burglar and the thief, has produced predatory warfare and murders without end, but the love of money has set the enginery of the world in motion. It has built railroads; it has operated factories; it has carried on commerce; it has built up a great material civilization. Pluck that acquisitiveness out of the human soul and what would become of all material prosperity?

"Pride—what a wall it is! But what an armor! What a protection! The Bible does not pluck pride out of men; no, it stimulates pride; it rouses men to a larger and a higher pride. It appeals to men who are proud in a low sphere, and calls upon them to be proud in a larger and higher sphere. You are sons of God, it says; you are kings and priests unto God; walk worthy of the vocation wherewith you are called. 'You are gods,' that is the language in the Bible. You are gods—that is the appeal which the Bible makes to pride, to self-esteem, in man. It transforms him with a larger and a diviner self-esteem. If ever a man was proud, it was Paul; if ever a man was self-contained, it was Paul; if ever a man walked in the strength of his own assured confidence in himself, it was Paul; so that when that light struck on Paul, and the voice spoke to him, he stood up unawed and replied, What do you want of me? When he started on his missionary tour, he says, I did not confer with anyone. I did not ask any authority from apostle or anyone else; I started off on my own account. And that pride of Paul did not disappear when he was converted. Not at all. That same self-confidence remained with him, a new quality, a transformed quality. When the mob caught him

in the Temple courts and beat him, and was about to destroy him, and he was rescued just as life was to have been taken from him, he stood on the tower stairs and asked leave: May I speak to the mob? There was the same strong, self-contained, heroic pride of character; and yet not the same, but that pride of character transformed and glorified.

"Courage! What is that? Analyze it and see. It is not all combativeness. It is not fighting for fighting's sake. No! No man ever yet had hero blood in him unless he had caution in him. The same thing that makes a man a coward makes him courageous. I think it was Wellington who, to one who boasted, 'I never knew fear,' replied, 'Then you never knew courage.' I remember sitting once on the porch of General Howard's house at West Point. A sham battle was being fought by the West Point cadets, and as we looked at it General Howard said, 'I can take no pleasure in that sight; I never see it that I do not shrink from it, that I do not think of the horrible scenes that I have seen on the battlefield.' The very thought he shrank from; and yet, when impelled by the high motives of love of country and love of liberty, he went into the battle. This it was that made him a hero. If he had no shrinking, he would not have been a hero.

"Approbativeness! a great vice and a great virtue. A man says, I am so weak, I care so much for the opinion of my fellow-men. I am so carried this way and that by public opinion, and change my complexion like the chameleon with every society I go into! Yes, that is a weakness; and yet that very weakness may be made an element of strength. For if a man does not care what people think, neither does he care for what they feel. The secret of sympathy is approbativeness. The secret of sympathy is the desire to be at one with others, and the sympathetic man is inspired by a great desire to be

thought well of by his fellow-men. That is the starting-point; and that starting-point of approbativeness, that desire to be well thought of by others, may be so turned, so directed, so transformed, that it becomes a great power.

"And what is true of the individual character is true of past history. All a man's past may be a motive power to aid him in his future. His blunders, his errors, his sins, as well as his successes and his victories, ought to add force to his life. Paul was educated to be a preacher of liberty because he was educated in the school of the Pharisees. Augustine was educated to be a preacher of purity because he was educated in the atmosphere of sensualism. Gough was educated to be an apostle of temperance because he was educated in the school of self-indulgence. Beecher was educated to be a preacher of the love of God because he was educated in a New England Puritan theology, which thought that God was wrath. We do not know truth until we have seen error; we do not know liberty until we have seen the prison; we do not know righteousness until we have wrestled with temptation. The whole progress of the human race has been just this: a progress up through temptation and wrestling into a higher life, into a larger life, into a virtue which is better than innocence, into strength that comes by temptation, that comes even by falling.

"This Sunday morning I urge you to give yourself to God because you have in you that which is undivine and not divine. You have no virtues to bring, you say. Well, bring your vices. You are proud. You are not proud enough! that is the trouble with you. Exalt your pride; realize that pride of circumstance and condition is a mean, low pride; that no pride is truly pride that does not lay hold on God himself and make you realize that you are His child. You care for what people think and you wish you could get rid of appro-

bativeness. You mistake. You do not care enough for what people think; nor for what the right people think. Care for what the best and noblest think! Care also for what God thinks; and when you have those two in one, you have approbateness glorified. When your approbateness makes you say, I want to stand well with the angels, I want to stand well with the pure, and the high, and the noble, I want to stand well with God Himself, and then say I want to stand well with my neighbors—you have a sympathy that can take hold of man with this hand, and of God with that hand, and can bring man and God together. Or you are acquisitive. You are not to get rid of your acquisitiveness. You are only to make it rational, reasonable, intelligent. You are to acquire that you may use; you are to go on with all the power of industry, only

so gathering that what you have gathered may serve you and your race and the world and God. You are passionate, quick, impulsive, easily given to wrath. What shall you do with it? Tame it, conquer it, harness it. Do not rake the fire out from under the boiler; keep the steam in the boiler, you want it—all you have. *Be angry! and sin not.* There is not a weakness that cannot be made a strength; there is not a poverty that cannot be made a wealth; there is not a hindrance that cannot be made an inspiration. The sun is kept alive by the matter which is cast into the sun but not destroyed, and out of that blazing orb, that gathers into itself all the matter that comes within its reach, there issue forth the rays of light that vivify and illumine the earth. God takes our very vices and out of them makes radiance and light and warmth-giving."

CHAPTER L.

THE CHRISTIAN MINISTRY.

REV. A. H. BRADFORD.

[DICTATED VERBATIM BY N. SIZER, NOT KNOWING HIS NAME OR PROFESSION.]

IF you had frame enough to turn the scales at 180 pounds without being too fat you would give to your brain the requisite sustenance. Your head measures twenty-three and one-quarter inches in circumference and fifteen and one-quarter inches from ear to ear over the top. As we study heads and bodies we think such a head ought to have about one hundred and eighty instead of one hundred and sixty pounds of weight connected with it, at your age; otherwise the boiler is not supposed to be quite strong enough for the machinery it has to operate. I had a man under my hands one day whose head measured twenty-four inches and he weighed 125 pounds. I asked him what his business was and he said: "I am an accountant." "I see how

it is, others go into the arena and make transactions and you keep tally." "That is it exactly." An hour later a man came in who had a twenty-four and one-half inch head and he weighed three hundred pounds. I told him he had power enough to do all the work that might be imposed upon him, and he would do it with a vigor and enthusiasm that would be relishful, and he would never be likely to break down or know what it was to be tired. People sometimes are puzzled when we talk to them about bodily proportions as compared with brain, and that we have need of vital power and muscular energy to enable the brain to work to the best of its ability.

We think you resemble your mother more than your father;

you sit tall and stand short. You have a long body, and in that length of body you have the

to another, spreads her wings and in three minutes she is over there. Her fleet-footed friend, the deer, wants

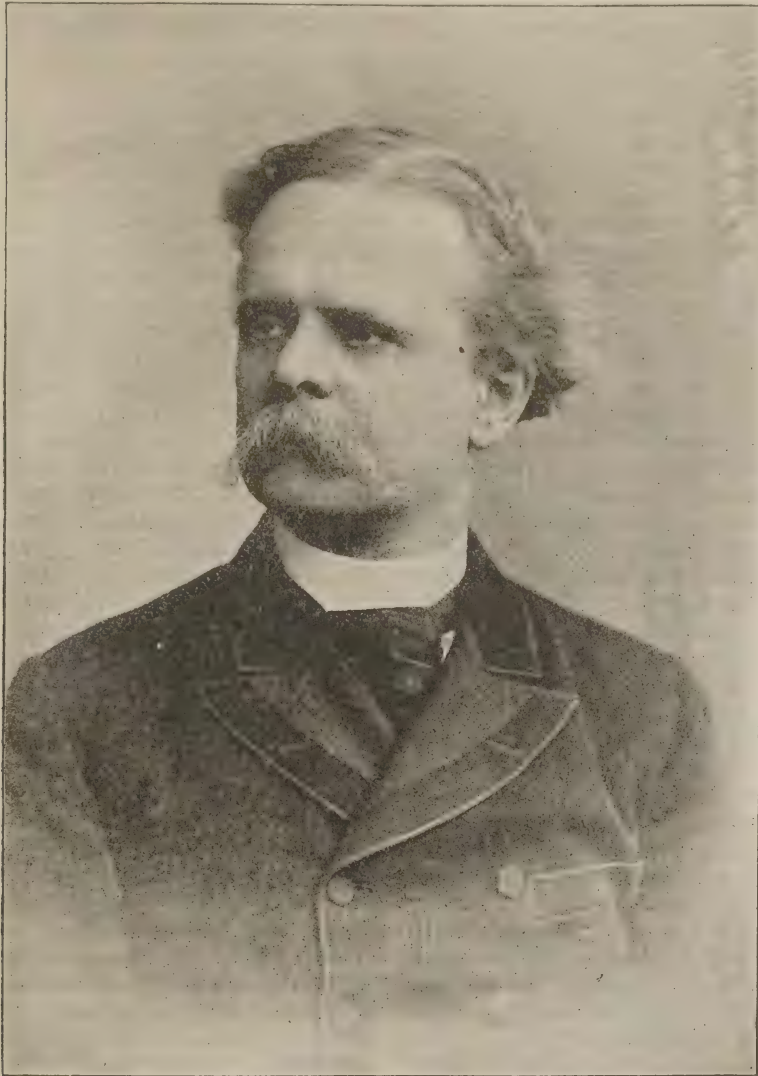


FIG. 315.—REV. AMORY H. BRADFORD.

vitality therefore your weight is more available than it would be if it were in bone and tallness. You ought to be known as an intuitive man grasping truth without following it in detail, grasping it in toto. The eagle, if she wants to go from one mountain top

to make the same journey, but he has to climb carefully down the mountain and cross the stream between that and the foot of the next mountain, and about day after to-morrow he will be at the top of the mountain where the eagle is who has been wait-

ing for him for a long time. Intuition is a little like the eagle's wings; it sees the objective point and reaches it without the labor of detail. You have a good deal of that in a moral point of view.

You read strangers as well as almost anybody we meet with, but you read them in the higher aspects, in the realm of motives, philosophy and purposes. There are men who have little meannesses of daily life that you do not know much about, therefore they are like mice gnawing at the root underground somewhere, while you are cultivating the vine and fruit forgetting that the insect may be spoiling the tree or vine by its gnawing. You do not look for that kind of people. You can understand a manly argument, a manly motive, you can appreciate the best there is in men.

You have large Causality, hence you are a philosophical thinker. You can follow a line of conduct and appreciate the reason why, and when you come to a spot where there is no track your reason will take you through all right. Your large Comparison makes you a critic of things, of motives, of thoughts, of sentiments. You compare one thing with another, one thought with another. If you were a lawyer you would follow a witness by your examination where he would be likely to go, keeping a safe position; you would know what was coming next naturally, and you might forestall him and ask him about it; and it would astonish him to know that you knew so well what was coming next; then the witness would think he might as well make a clean breast of it and tell the whole story. If you were questioned as to how you knew you might not be able to tell, but it would be a logical sequence of what had been done and said. Your impression of a stranger is clear. You know what men are when you meet them. If you had to take somebody in the seat with you in the train riding a hundred miles, and the people commenced to crowd in at a

certain station, you would begin to feel anxious as to who would take the seat, and when you saw a face you liked you would catch the person's eye and he would understand it and you would make room for him; and you would find perhaps that he was the most delightful man that you would meet in a month; and you had chosen him from among a crowd of men who were hurrying along.

If you were doing business or anything else among strangers you would be skillful in selecting your assistants and in managing such as you selected. If you were at a window as paying teller in a bank you would read the faces, would study the men, and if you liked a man you would look at his paper and decide that it was all right.

The power of your mental makeup finds its center in the Reasoning intellect, in grasping truth in the bulk, in making yourself master of the forms which belong to the sphere in which you move. You can invite, invoke and reduce; then mold and master public sentiment. You are a good talker, but you do not waste many words. There is a sort of persistency and crispness in your conversation which satisfies people who are listening to you. In conversation with half a dozen men you will very easily become the leader in it.

You have large Constructiveness that gives you a knowledge of how to use forces that are within your reach, how to utilize opportunities; to do this as an introduction to that, that as a stepping stone to something else; so by a spiral, circuitous route you reach altitude without a steep grade. Sometimes if you want to act on a particular man you will say to yourself, "I have not sufficient acquaintance with him to warrant my approaching him. I know him well enough, but he does not know me." Then you will start with somebody you do know who knows somebody who is an intimate friend of his, and in that way you get an introduction which will place you in right relation

with the man you have occasion to deal with. You seldom do things in such an abrupt way as to foil your purpose through mismanagement or unskillfulness. That is where the constructive element comes in ; not to build a barrel, but to manage a committee, manage a party, manage a jury. If you were foreman of a jury you would know men well enough when you went into your jury room to make a little speech and say : " Now let us vote in silence." You would pass around blank pieces of paper and ask the gentlemen to vote as to whether the plaintiff or defendant had won the case, by marking the initial letter of the word plaintiff or defendant on the paper. If ten were one way and two the other you would say, " Now that gives me a chance to change my vote if I want to. Let us vote again." You would get unanimity next time. Then as to the question of damages, you would ask each man to put down the amount on his ballot ; and by voting three times you would get near enough to unanimity so that an average would approximate to justice. You would keep them from arguing and let them vote silently, and they would gradually work toward each other till you got unanimity.

You have the faculty of Agreeableness, you can make yourself and the subject you have in hand acceptable to people who need to be led and conciliated. Instead of saying, " This is the way, walk ye therein," and being mandatory about it, you would say, " Well, my friends, how shall we manage this matter ? We all want to do right. Now, what is your wish, will and purpose ? " " Well, we would rather hear you give yours." " Ah, you want my opinion ! Well, if I were alone in the matter I should do it this way ; I think, perhaps, that is the best way ; it is the way it strikes me as being best." You might bring them all right into it. But if you undertook to domineer and dogmatize them, they might think,

" Who put you as a ruler over us ? " You lead men by that agreeableness we speak of ; there is a certain sort of tact in it also. Cloth rubs smoother one way than another as well as fur ; and human disposition likes to go with the grain instead of against it. You will speak to men in such a way as to make them say, " You tell it, my friend ; you are chairman of the committee, and we will have your opinion about it if you please." The point is, you talk in such a way that it does not sound as if you were trying to coerce them.

Your Benevolence is large, you feel sorry for the human race and try to help those who are needy, not so much by handing out money, but by giving good advice to those who will take it. We can give a man a loaf of bread and it is soon consumed, and he is as hungry in a little while as he was before. Your idea of charity would be to show a man how he could earn three loaves every day honestly ; then he would not need to come begging for a loaf. It is like starting an engine with a start bar, when we get it started it operates its own cut-off, let on or off steam automatically. You would work charities in the same way.

You ought to be known for musical sense ; you have real relish for the harmony of sweet sounds. You like to hear a speaker whose voice is mellow, pliable and pleasant. You envy people a fine voice, or congratulate them at least. You have a sense of economy, the ability to manage matters in such a way as to make everything that is valuable available to the best advantage. There are men who will go into a parish church that is all snarled up with debt, and they will study into it, find out just how it is, perhaps induce some brother to lend money enough to clear the church of debt, then establish a sinking fund to pay it, and so much a month would be put into the sinking fund. You would be able to see how financial soundness and honesty could be established.

You have a certain financial integrity about you; you not only want to be able to pay your debts, but to pay them in such a way as to make it seem that you are good, that you value your promise. If you promised to pay a debt, and as the time approached you doubted as to whether you could pay it at such a time, you would see the man and ask him if he could let it lie over for a few days. He would say: "I will let it lie over for a month if it suits you." You have always kept your credit good and paid your debts." If you bought goods on time, if you were a merchant, if you could pay earlier than you agreed to you would think it good policy to do so. If you lived in a place where you had to depend on the crops to get your money from people, that is, if you were selling goods, you would buy goods at six months. If the man you bought of said: "We generally sell at three months," you would say: "Well, I cannot buy of you; my people cannot pay in that time. If I buy goods of you, you must give me credit for six months;" and he would do it. But you would try to pay in three months if you possibly could, or you would try to work off half in three months and the whole in five. And the man would think you were the best customer he had because you had paid earlier than you agreed to. That is where the credit comes in; it is not the man who pays earliest, but it is the man who pays earlier than he promised to; he is the one who deserves credit.

Your Firmness is large; that gives you stability of purpose. Your Conscientiousness is strong; that makes you earnest and upright in your feelings and purposes. Caution leads you to be prudent, painstaking and guarded. Secretiveness enables you to conceal that which it is not best to tell, to tell the truth in such a way as not to have it seem overt and offensive. You can mingle freely with men of opposite opinions in religion

and politics and manage in such a way as not to antagonize them. If a man has certain strong views you cannot quite accept, you say: "Those are your views; you are all right; but we are talking about another matter now; men must work according to their own conscience, seek truth as they can appreciate it, and live up to it for themselves; but this other matter is not based on whether you are high church or low church." You make people feel that you are not antagonizing them. You do not hunt for differences or for opportunities for argument. That comes from Caution, Kindness, Secretiveness and Agreeableness, and, we may add, Friendship.

You are known for strong sociability. You have ardent love and constancy of affection. We think you are constitutionally loyal in spirit in regard to matrimonial law and life, and anything that is contrary to the highest ethics in that respect would perhaps be as offensive to you as anything that belongs to the category of wrongdoing. There is a faculty, we think, which seeks to choose the one precious mate for life, bidding adieu to all others; and to you, that loyalty is the cream of human character.

Your love for children is uncommonly strong. Wherever you are called to associate with people the little folks, the little children, will learn to look for you and will appreciate you when you come. As a physician, as a teacher, as a merchant, as a minister, you would be welcome to the children, popular with the young. You get that, we think, from your mother. There is a great development of adhesiveness or Friendship, that gives loyalty to friends, to human attachments. Damon and Pythias, David and Jonathan, loved phenomenally, and history has embalmed them.

You are ambitious of distinction, you enjoy approval, and it hurts you to have anything doubt you. If you were making a call and the dog

grumbled when you came on the step and walked around you as much as to say, "What are you here for? I do not know you," and if the girl who opens the door looks sour, you fancy the one you are calling on may not be pleased to see you. But if the dog welcomes you and the girl who answers the bell looks pleasant, you think everything is all right.

You have a large brain and a fine quality of organization. You are capable of doing a good many things, and of doing well in many ways. You ought to have had a good education. You could be a public speaker. You could be a writer. You could be a manager of affairs. You could do well in a large insurance business. You could do well in commercial business, in banking business. You could do well in matters pertaining to construction, art and refinement. You would make a fine classical scholar and scientist as well; and you would want to carry yourself in such a way as to have the moral side of life uppermost and regnant.

BIOGRAPHY.

Rev. Amory H. Bradford was born in Oswego County, New York, and passed all his earlier years in Central and Western New York. He prepared for college at the academy of Penn Yan and graduated at Hamilton College in the class of 1867. He studied one year at Auburn Theological Seminary, and then spent the remainder of his course at Andover, where he graduated in theology. He has since studied at Oxford University in England, giving special attention to metaphysics, ethics and biblical criticism. In Europe he was a careful student of the leading social questions, in England and on the Continent.

In 1870 he accepted a call to the new church in Montclair, N. J., and preached in it the first Sunday after its organization. It is an interesting fact that his life as a minister and the

life of the church are exactly coeval, it never having had another candidate, and he beginning his work there. When he came to the church the services were held in a little hall that would seat barely two hundred people. The church has grown until now there is a membership of seven hundred and fifty. The church edifice is believed to be the largest in the State of New Jersey. The church property is valued at not far from \$200,000 including the parsonage.

To indicate his popularity abroad, it may be mentioned that in 1891 he was invited by Principal Fairbairn to give the Commencement Sermon at the close of the term at Mansfield College, Oxford, the first American, and, indeed, up to this time, the only American who has been invited to such a service. He was a delegate to the International Congregational Council in London, and has spoken before many of the colleges and in most of the prominent Independent churches in England. He is now Southworth lecturer on Ecclesiastical Polity at Andover Theological Seminary; was the first secretary of the American Institute of Christian Philosophy, and has been a frequent lecturer in its courses, including a lecture on "Body and Will."

He has been invited to leave Montclair for positions in New York, Brooklyn, Boston, San Francisco and Portland, Oregon, and has been urged to accept an important pastorate in London.

He has been invited by Dr. Abbott to join the editorial staff of *The Christian Union*, and the public may be congratulated on the fact that he has accepted and is filling the position. He has published one book, entitled "Spirit and Life"; another, entitled "Old Wine, New Bottles"; and has in preparation and nearly ready for publication another, entitled "The Pilgrims of Old England," and still another one on "The Relation of Heredity to Religious and Social Problems."

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